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Volume II of this study reports two nationwide surveys of distributive education teacher-coordinators: (1) survey of time and place for teaching distributive education topics and (2) survey of added training needed by the teacher-coordinator. From the population of both the high schools and the community colleges, a systematic random sample of names was selected from a list of all high school coordinators; 430 for one survey and 451 for the other. From the community colleges, the total of 364 names was randomly divided with one half receiving one questionnaire and the other half receiving the other. Two principal conclusions were drawn from this study: (1) In the time available to most distributive education programs, both high school and community college distributive education graduates can be adequately prepared, and (2) neither high school nor community college teacher-coordinators feel any great need for additional training in subjects or personal characteristics which they believe belong in the distributive education classroom. From these, it is recommended that (1) curriculum involve teachers from other disciplines, (2) curriculums be reviewed in each state, and (3) formal arrangement with employers be made to supervise personal development on the job. Volume I is available as VT 007 952. (MU)

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Places to Teach, Time Requirements, and Teacher Preparation

Volume II of II Volumes

January 1969

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Charles E. Peck, Principal Investigator
F. L. Denman, Co-Investigator

University of Washington
Seattle, Washington

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CONTENTS

Page

SUMMARY 1

INTRODUCTION 3

METHOD AND RELIABILITY 5

SURVEY OF TIME AND PLACE TO TEACH DISTRIBUTIVE EDUCATION TOPICS. 9
- Response Rate 9
- Explanation of Tables 9
- High School Programs 21
    - Subject Areas for High School Distributive Education Classrooms 21
    - Preferred Locations for Teaching High School Subject Areas. . . 21
    - Preferred High School Locations for Developing Personal Characteristics 27
    - Required Hours for High School Subject Areas 30
    - Time and Place for Most Important High School Subjects 30
    - Place for Most Important Personal Characteristics for High School 35
    - Conclusions for High Schools 35
- Community College Programs 37
    - Subject Areas for Community College Distributive Education Classrooms 37
    - Preferred Locations for Teaching Community College Subject Areas 37
    - Preferred Community College Locations for Developing Personal Characteristics 53
    - Required Hours for Community College Subject Areas 56
    - Time and Place for Most Important Community College Subjects. . 56
    - Place for Most Important Personal Characteristics for Community Colleges 61
    - Conclusions for Community Colleges 61

SURVEY OF ADDITIONAL TRAINING NEEDED 64
- Response Rate 64
- High Schools 65
    - Hours in Distributive Education Program Devoted to Most Important Subjects 65
    - Coordinators' Need for Additional Education in Subject Areas. . 67
        - Important Subjects Needing Most Education 67
        - Important Subject Areas Needing Less Education 68
    - Coordinators' Need for Additional Education or Training for Developing Personal Characteristics 70
        - Important Characteristics Needing Most Training 71
        - Important Characteristics Needing Less Training 72
    - Degree of Preparation in General Distributive Education Teaching Matters 74
    - Conclusions 74

Contents (continued)

Page

Community Colleges 75
    Hours in Distributive Education Program Devoted to Most Important Subjects 75
    Coordinators' Need for Additional Education in Subject Areas. 77
        Important Subjects Needing Most Education 78
        Important Subject Areas Needing Less Education 79
    Coordinators' Need for Additional Education or Training for Developing Personal Characteristics 80
        Important Characteristics Needing Most Training 82
        Important Characteristics Needing Less Training 83
    Degree of Preparation in General Distributive Education Teaching Matters 84
    Conclusions 84

CONCLUSIONS AND RECOMMENDATIONS 86

APPENDIX CONTENTS 88

LIST OF TABLES

Table No. | Page

1 Time and Place for Specific Areas of Knowledge and Skills in High School Distributive Education Programs 11

2 Places in High School D.E. Programs, Including Best Places, Where Personal Characteristics Can Be Taught or Developed . . 16

3 Subject Ranking According to Whether High School Respondents Believe Subjects Should Be Included in the D. E. Curriculum . 22

4 High School Coordinators' Opinions on Where D. E. Subjects Should Be Taught 24

5 High School Coordinators' Opinions on Where Personal Characteristics Should Be Taught 28

6 Number of Hours High School Coordinators Believe Are Necessary for Various Levels of Achievement 31

7 Time and Place for Most Important High School Subjects . . . 34

8 Place for Most Important Personal Characteristics for High Schools 36

9 Time and Place for Specific Areas of Knowledge and Skills in Community College Distributive Education Programs 38

10 Places in Community College D. E. Programs, Including Best Places, Where Personal Characteristics Can Be Taught or Developed 43

11 Subject Ranking According to Whether Community College Respondents Believe Subjects Should Be Included in the D. E. Curriculum 48

12 Community College Coordinators' Opinion on Where D. E. Subjects Should Be Taught 50

13 Community College Coordinators' Opinions on Where Personal Characteristics Should Be Taught 54

14 Number of Hours Community College Coordinators Believe Are Necessary for Various Levels of Achievement 57

15 Time and Place to Teach Most Important Community College Subjects 60

16 Place for Most Important Personal Characteristics for Community Colleges 62

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Charles E. Peck, Ph.D.
Frederick L. Denman, Ph.D.

SUMMARY

This report, labeled Volume II, is an outgrowth of Volume I, in which the relative importance of subject areas and personal characteristics in marketing and distribution jobs was discussed. The surveys for the first volume were taken entirely within the State of Washington.

Upon completing the first volume, the authors decided 2 matters needed further investigation:

1. The views of teacher-coordinators in the nation as a whole with regard to the place and length of time to teach or develop these subjects and personal characteristics.

2. Teacher-coordinators' perceptions of how well prepared they are to teach or develop these subjects and characteristics.

As a result, the following 2 sets of questionnaires were sent to high schools and community colleges throughout the United States.

1. One survey inquired about places and length of time to teach certain subject areas and personal characteristics. Because a similar form was sent previously (for Volume I) to coordinators within the State of Washington, this questionnaire was mailed only within the remaining 49 states on a systematic, random basis.

2. Another survey about need for additional teacher-training was mailed to teacher-coordinators in all the 50 states. It used a complete census of all coordinators in Washington State and a systematic, random sampling in the other 49 states.

Thus, Volume I presents the thinking of businessmen and teacher-coordinators--all within the State of Washington, while Volume II presents the thinking of only teacher-coordinators (regarding both places and length of time to teach certain subject areas and their degree of preparation in them), but on a national basis.

Two principal conclusions can be drawn from this study:

1. In the time available to most distributive education programs, both high school and community college distributive education graduates can be adequately prepared in those subjects which businessmen say are most important to them on the job.

2. Neither high school nor community college teacher-coordinators feel any great need for additional training in the subjects or personal characteristics which they believe belong in the distributive education classroom.

Based upon these conclusions, it is recommended:

1. Curriculum designers should make every effort to involve teachers from other disciplines (such as Mathematics and English) in teaching certain subjects that are important to distributive education graduates.

2. The distributive education curriculum in each state should be reviewed with a view toward putting appropriate emphasis and time (as shown in this study) on those distributive education subjects which are best taught in the distributive education classroom.

3. Eventually some formal arrangement needs to be made with employers involved in cooperative programs to supervise the development of those personal characteristics best handled on the job. But, in the meantime, these characteristics should continue to be developed in the classroom whenever possible.

INTRODUCTION

Volume I of this study reports the results of 2 surveys conducted entirely within the State of Washington. One of these surveys went to businessmen and the other to distributive education teacher-coordinators in high schools, vocational schools, and community colleges. By relating the results of these 2 surveys, Volume I shows:

1. What subject areas and personal characteristics the business community says are important for those persons who hold marketing and distribution jobs.

2. Where the business community and the teacher-coordinators in the State of Washington believe these subjects and characteristics should be taught or developed.

3. How long the teacher-coordinators believe it would take in classroom hours for the average student to reach 3 specified levels of achievement.[1]

Even though the business survey was conducted entirely within the State of Washington, the authors believe that it provides a basis for valid inferences anywhere within the United States. They believe that the requirements of marketing and distribution jobs vary from industry to industry--but not from place to place or state to state. Therefore, the broad industry sample taken in the State of Washington was not duplicated for the nation as a whole. However, the administration of state distributive education programs, the support these programs receive from school boards, and the way they are perceived by the teachers themselves probably vary considerably from state to state. Therefore, the authors duplicated the Washington study with a nationwide survey of distributive education teacher-coordinators; this volume reports its results.

In addition, it became apparent during the preparation of Volume I that the school superintendents, administrators and curriculum designers need some measure of how well equipped distributive education teacher-coordinators are to teach various subject areas. Therefore, Volume II also reports the results of a separate nationwide survey of teacher-coordinators designed to discover how much additional education or training they feel they need in various subject areas and personal characteristics. Finally, this volume relates these nationwide surveys to the business survey reported in Volume I.

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[1] See page 58 in Volume I for details; the 3 levels are: Acquire a General Notion, Ability to Talk About, and Ability to Apply on Job.

Thus, this volume--coupled with Volume I--shows what is important for the distributive education graduate to know, where he should learn it, how long it takes him to learn it, and how well prepared his teacher-coordinators believe they are to teach it at present.

This report presents a discussion of the method used in the 2 nationwide surveys, the findings of these surveys, and the conclusions and recommendations which are appropriate. The discussion of the method, plus the materials in the appendixes of this volume and Volume I, give enough information to enable state distributive education offices to perform their own studies if they feel that results more specific to their own areas are necessary.

METHOD AND RELIABILITY

Each of the 2 surveys in this study was conducted among a nationwide sample of teacher-coordinators. A list of all distributive education teacher-coordinators in each state was obtained from the office of each State Director of Distributive Education. On these lists high school coordinators were easily identifiable, so that the final list from which the high school sample was drawn was both accurate and complete. However, the identification of distributive education coordinators at the community college level was a bit more difficult.[1]

For the high schools, a systematic random sample of about 400 names was selected from the list of all teacher-coordinators throughout the United States for each of the 2 surveys. When questionnaires were returned indicating that the respondent had transferred or resigned, a substitute name was drawn at random as a replacement. For the community colleges, there were only a total of 364 names on the list. Therefore, the list was randomly divided and one-half the total respondents received the questionnaire pertaining to their own need for additional education and the other half received the questionnaire pertaining to the number of classroom hours necessary to teach various subjects to their students. In addition, the follow-up to non-respondents involved 2 letter reminders. The final response rates for these questionnaires are reported on pages 9 and 64.

Both questionnaires were tested by mail in the State of Washington and mailed nationally to the respondents between January and March of 1968. The results were keypunched and tabulated by computer at the University of Washington.

One limitation of the study is worthy of note. Several of the community college respondents mentioned that response to one questionnaire was difficult because they could not clearly distinguish between distributive education programs and distributive education classrooms. They reported that because college-level programs are

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1. Two-year colleges are identified by different terms in different parts of the country, and distributive education programs are often provided in 4-year rather than 2-year institutions. In addition, distributive education programs are not always identified under uniform terminology, so that it is difficult to tell whether a particular program is distributive education or not. Therefore, the final college list probably contains a few persons who would not identify themselves as distributive education coordinators, and probably omits a few who would. The study refers to all of them as community college coordinators.

2. Actually, 881 questionnaires were mailed to high school coordinators--430 for one survey, 451 for the other survey.

made up of several courses taught by different instructors, with perhaps none of them being identified as distributive education per se, the questionnaire was ambiguous, and the reporting of the number of classroom hours necessary was imprecise. However, a careful reading of each returned questionnaire showed that most of the respondents in the college survey interpreted the questions correctly and answered appropriately. Where it was obvious that a respondent had not done so, the questionnaire was not included in the final tabulation.

Turning now to the question of reliability, we can say in general terms that by observing certain cautions, the principal findings of this study can be used with confidence in making curriculum decisions. In the "Time and Place" surveys all results given in percentages are reasonably reliable (see details below), and all results given in the median hours where the number of respondents is fairly large are accurate within an hour or two. Because some answers were optional and only a few respondents elected the option in certain cases, there are some results based on answers by only a few persons. These are of very little value. In the "Additional Training" survey the same remarks apply, especially for subjects which most coordinators felt did not belong in the distributive education curriculum. In those cases the rankings must be largely disregarded.

In more precise terms, we must say that the statistical reliability of inferences about the general populations of high school teacher-coordinators and community college teacher-coordinators in this study is indeterminate, because there is substantially less than 100 per cent response in each case.

For the proportion of the population represented by those who did respond, the reliability is fairly good for the high school surveys. First, for those results which are given in percentages, it varies in the "Time and Place" survey at the 95 per cent level of confidence from about ± 1 per cent (where the percentage figures are either very high or very low and the omitted responses are few) to about ± 6 per cent (where the percentage figures approach 50 per cent and omitted responses are large). In the "Additional Training" survey, the corresponding figures are ± 1 per cent to ± 13 per cent.[1] Second, for those results which are in median hours, the reported figures could vary at the 95 per cent level of confidence in both surveys from less than about 1 hour (where the median hours are low, the reported range is small, and the number of respondents is large), to several hours (where the median is high, the range is large, and the number of respondents is small). Most are probably reliable within plus or minus an hour or two (see Tables 1, 6, and A8). Finally, those results which are given as rankings in the "Additional Training" survey could be in error by plus or minus 1 or 2 places where the number of respondents is large, to plus or minus 4 to 5 places where it is small[1] (see Tables A11 and A16).

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[1] Subjects such as Dictaphone in the high school survey and Cash Register in the community college survey were perceived by most respondents as not belonging in the distributive education curriculum and therefore only a few respondents rendered judgments about the amount of additional training they needed in them. Thus, for those items the reliability is quite low. However, for the items on which there was general agreement that they belonged in the distributive education curriculum the reliability is good.

For the community college surveys, the reliability is somewhat lower, varying from about ± 6 per cent to ± 10 per cent for the percentages in the "Time and Place" survey, and from about ± 6 per cent to ± 20 per cent in the "Additional Training" survey.[2] The reliability of the median is, again, from about plus or minus 1 hour to plus or minus several hours, with most being within an hour or two for both surveys (see Tables 9, 14, A22). The place rankings in the "Additional Training" survey vary from plus or minus 8 places to plus or minus 27 places (see Tables A 24 and A29).

Budgetary restrictions prevented a formal attempt to estimate the variations which might have occurred in the results of these studies if the non-respondents had been included. However, some informal checks and the experience gained in the surveys in the State of Washington for Volume I lead the authors to believe that the non-respondents can be described in 3 groups, as follows: the first, and probably the largest group, is made up of younger teacher-coordinators, many of them in their first year, who did not respond because they believed they did not have the experience necessary to make the judgments which the questionnaires required; the authors believe that this group would not have changed the results materially. The second group is made up of those who were not convinced of the importance of the study; and because the questionnaire required substantial effort to complete, they simply refused to take the time; this group's judgments probably do differ from the responding group in some ways, but it is impossible to know how. The final group is probably the smallest and is a miscellaneous one, representing those who are openly hostile to any sort of survey efforts, are critical of this particular instrument, or intended to reply but did not get around to it. It is doubtful that they would have changed the result substantially.

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[1] Subjects such as Dictaphone in the high school survey and Cash Register in the community college survey were perceived by most respondents as not belonging in the distributive education curriculum and therefore only a few respondents rendered judgments about the amount of additional training they needed in them. Thus for those items the reliability is quite low. However, for the items on which there was general agreement that they belonged in the distributive education curriculum the reliability is good.

[2] For "Additional Training" data pertaining to the State of Washington only, the reliability is substantially lower for both high schools and community colleges.

SURVEY OF TIME AND PLACE TO TEACH DISTRIBUTIVE EDUCATION TOPICS

The questionnaire[1] on time and place to teach distributive education topics was mailed nationally (except for Washington State) to a sampling of teacher-coordinators in high schools and to half the coordinators in 2-year post-secondary schools.

Response Rate

The number of questionnaires sent and the per cent of usable returns are shown below:

	High Schools	Community Colleges
Sent	451	177
Returned	334	126
Not usable	0	18
Usable	334	108
Per cent usable returns	74%	61%

Explanation of Tables

This chapter is divided into 2 sections--High Schools Programs and Community College Programs--and there are 2 basic tables for each.

For the high school section these 2 tables are numbered and identified as follows:

Table 1	Time and place for specific areas of knowledge and skills in high school distributive education programs, pp. 11 to 15.
Table 2	Places in high school distributive education programs, including best places, where personal characteristics can be taught or developed, pp. 16 to 20.

For the community college section these 2 tables are numbered and identified as follows:

Table 9	Time and place for specific areas of knowledge and skills in community college distributive education programs, pp. 38 to 42.
Table 10	Places in community college distributive education programs, including best places, where personal characteristics can be taught or developed, pp. 43 to 47.

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[1] See pp. 91 to 98, the Appendix, for a copy of the questionnaire.

Tables 1 and 9 have 10 columns each and show:

1. Whether each of the subject areas used in this study is a distributive education subject.

2. Where it should be taught.

3. Number of hours needed to raise the average student to each of 3 different levels of understanding in that subject.

4. Median hours rather than mean hours (as in Volume I), because the means were too heavily weighted by extreme values. (Therefore, direct comparison between Tables 1 and 2 in Volume 2 and Tables 17 and 19 in Volume I are meaningless.[1])

The second table in each section (Tables 2 and 10) shows where each of the personal characteristics examined in this study can be taught and where it is best taught. Both these measures are included so that there is an indication of alternate places in which coordinators believe the subject can be taught. These alternates might be useful knowledge to some school districts that are prevented from teaching the subject area in the place where teacher-coordinators believe it is best taught.

The other tables throughout this chapter are based on these basic tables. They rearrange the data in some way or make some additional computations from it. As shown in Tables 1, 2, 9, and 10, they consider which subjects and personal characteristics should be included in the distributive education curriculum, whether or not they should be taught in the distributive education classroom, and how many classroom hours are needed to teach distributive education subjects. In addition, Tables 7, 8, 15, and 16 summarize these matters for the list of subjects and personal characteristics which businessmen say are most important. Finally, although the discussion does not require cross tabulations by age, teacher experience, etc., classification data about the respondents appear in Tables A1 and A2 of the Appendix.

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[1] The authors computed the means for the national sample, and the comparison of them with Volume I figures shows Washington values to be substantially larger. This occurs partly because in the national survey any value over 99 was recorded as 99, which was not the case in the Washington survey, and partly because the Washington D. E. programs have more classroom hours available than the program in many states, and therefore, Washington teacher-coordinators probably tend toward the opinion that more hours are required.

Table 1 Time and Place for Specific Areas of Knowledge and Skills in
High School Distributive Education Programs
(Total Teacher-Coordinators Responding - 334)

The first 6 columns show the per cent of teachers who indicated that the statement in the column applied to each item; the next 3 columns show the average (median) of teacher judgments on hours to each level for each knowledge and skill item. The last column indicates the number of teachers who did not respond to the item.

	A	B	C	D	E	F	G	H	I	J
	Doesn't belong in D.E. curriculum (%)	In D.E. class (%)	On the job (%)	In non-D.E. class (%)	Other (%)	I have never taught it (%)	General notion (hrs)	Ability to talk about it (hrs)	Ability to apply on job (hrs)	Number of omitted responses (freq.)
Communications										
a. Writing										
1. Letter writing....	16.8	50.0	4.3	51.3	4.9	8.9	2	4	6	30
2. Report writing....	16.2	44.1	9.4	49.8	5.4	8.8	3	5	10	37
3. Spelling..........	21.9	37.4	5.3	55.0	6.6	6.3	4	5	10	32
4. Penmanship........	26.3	25.9	5.4	56.2	6.1	6.1	2	4	6	37
5. Punctuation.......	27.4	24.0	3.0	59.1	6.8	4.1	2	4	5	38
b. Oral presentation										
1. Group discussion..	2.3	90.9	9.7	27.9	3.7	10.7	3	6	10	36
2. Prepared talks....	3.0	86.0	5.7	29.8	4.3	7.0	4	6	10	35
3. Person-to-person discussion........	4.2	87.2	21.1	24.2	2.8	11.1	3	5	7	45
c. Basic grammar........	30.9	21.0	3.4	55.0	6.2	4.8	3	4	6	43
d. Listening and observing............	8.2	72.5	29.2	33.3	5.8	8.2	2	5	6	43
e. Reading										
1. Reading for comprehension.....	31.6	29.3	5.4	47.6	5.4	8.8	5	8	15	40
2. Reading fast	40.5	13.8	2.8	44.3	5.5	5.2	1	4	5	45
f. Use of the telephone.	1.0	92.4	28.9	15.6	2.3	10.6	2	3	5	33

Table 1 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Mathematics										
a. Basic arithmetic (addition, subtraction, division, multiplication.......	15.9	57.0	15.3	45.7	4.6	3.0	5	6	10	6
b. Business arithmetic (discounts, mark-ups, mark-downs)..........	1.0	95.8	35.5	17.5	3.6	2.1	5	9	15	2
c. Mental arithmetic capability...........	9.6	67.7	22.4	33.2	4.3	9.3	3	5	7	12
d. Making change........	0.3	96.4	39.9	6.9	1.8	1.8	2	3	5	3
e. Higher mathematics...	65.4	3.8	1.0	26.7	5.7	0.9	3	5	5	16
f. Statistics...........	47.8	22.6	3.5	28.3	5.3	7.9	2	5	9	16
Human Relations										
a. Ability to get others to work effectively..	2.7	93.4	45.9	13.0	3.3	4.8	2	5	8	3
b. Ability to work with others...............	0.3	95.8	51.1	14.8	2.7	2.1	2	5	8	3
c. Fair treatment of minorities (customers and employees).......	3.6	92.4	49.4	13.6	2.7	5.2	2	4	5	4
d. Ability to deal with superiors............	0.3	96.7	45.9	8.8	3.0	1.8	2	4	5	3
e. Business etiquette...	0.0	98.8	47.1	11.8	3.9	5.1	2	4	5	3

Table 1 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Marketing										
a. Salesmanship.........	0.0	99.9	47.7	6.6	1.8	0.6	6	15	25	1
b. Marketing research...	4.2	90.6	17.8	5.4	2.7	14.8	5	8	12	3
c. Advertising..........	0.0	98.8	39.1	5.1	1.5	2.4	5	10	20	2
d. Sales promotion (display, contests, tradeshows)..........	0.3	97.2	40.7	4.2	2.4	1.8	5	10	15	2
e. Inventory records....	0.0	91.6	50.3	8.4	1.5	9.3	2	5	8	2
f. Fashion trends.......	0.6	92.7	39.3	7.3	2.4	12.1	2	4	6	3
g. Buying...............	0.6	94.8	45.3	3.6	1.5	7.0	5	6	10	5
h. Transportation.......	3.1	92.2	29.5	6.8	1.2	11.2	2	4	6	12
i. Stockkeeping and inventory control....	0.0	94.3	50.7	5.7	0.3	3.6	4	6	10	3
j. Credit...............	0.0	96.4	38.7	12.4	2.1	3.0	3	5	10	3
k. World trade..........	11.2	72.3	9.7	24.3	3.1	17.8	2	5	6	13
l. Channels of distribution...............	0.3	97.6	21.7	9.3	1.5	2.1	3	5	9	2
Financial Records										
a. Bookkeeping..........	28.4	29.3	11.4	57.1	4.0	5.6	5	10	15	10
b. Reading financial statements...........	18.3	51.6	10.2	43.5	4.0	10.6	2	4	7	12
c. Accounting (more than bookkeeping and reading financial statements)..........	46.9	12.3	3.1	43.1	3.8	4.4	3	5	8	16

Table 1 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Machines of Business										
a. Typewriter............	44.9	4.4	2.8	50.2	2.8	2.2	1	10	10	13
b. Dictaphone............	52.7	6.0	4.4	39.7	3.2	3.5	2	2	6	17
c. Calculator............	39.5	17.2	9.2	45.9	2.5	5.7	2	5	10	20
d. Adding machine........	21.0	45.1	21.3	40.1	1.9	12.9	1	3	5	15
e. Cash register.........	1.5	92.6	43.3	9.6	0.6	7.4	2	3	6	11
f. Weighing or measuring devices..............	9.1	66.8	41.0	12.9	1.3	21.3	2	3	5	15
Economics										
a. Techniques and strategy for setting prices....	2.8	89.4	29.1	16.2	2.8	13.4	2	5	8	14
b. Free enterprise system in general............	2.8	91.3	12.8	23.7	3.7	3.4	2	5	8	13
c. National income.......	11.1	66.9	4.1	35.9	4.1	8.6	1	2	4	19
d. Economic cycles.......	9.8	69.5	5.4	34.6	3.8	7.0	2	4	5	19
e. Business locations....	2.2	93.4	14.4	11.3	2.2	5.0	2	4	6	15
f. Forecasting...........	9.8	74.9	14.3	21.3	3.5	16.2	2	3	5	19
g. Seasonal fluctuations.	3.5	90.5	20.6	14.9	1.6	9.8	2	3	5	18
h. Money and banking (banking services and activities, role of money, etc.)..........	8.5	75.2	13.2	32.3	4.4	7.5	3	5	8	15
i. Sources of funds for starting and operating a business............	2.8	92.7	12.0	18.0	2.5	10.7	2	4	5	17
j. Role of profit........	1.9	94.0	20.1	20.4	2.8	5.0	2	4	5	16

Table 1 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Other Knowledge										
a. Knowledge of data processing	28.6	34.8	11.4	42.2	4.9	12.3	2	4	5	9
b. Insurance	9.4	70.8	9.7	34.0	2.7	9.1	2	4	7	5
c. Local trade laws	5.6	79.2	22.0	20.1	2.5	14.9	2	3	5	11
d. Business law	12.2	53.0	9.1	49.1	4.3	8.5	3	5	10	6
e. Federal laws and regulations	7.0	78.0	17.0	29.3	4.3	7.0	2	4	6	6
f. Unions	8.9	74.8	19.1	29.3	3.5	10.5	2	4	5	20
g. Cultural development (appreciation of literature, art, and music)	49.5	14.3	3.4	38.0	7.2	2.5	2	5	10	13
Business Organization, Procedure and Management										
a. Type of business organization	1.5	92.0	19.6	18.6	2.4	3.0	2	5	8	6
b. Business procedures (orders, invoices, deliveries, etc.)	1.2	91.2	37.4	15.2	1.2	4.0	3	5	9	5
c. Internal organization relationships	4.6	84.6	30.9	12.3	1.5	7.4	2	4	5	10
d. Supervision	4.3	86.3	32.3	8.4	1.9	9.9	2	4	8	12
e. Labor-management relationships	4.3	85.5	30.2	15.7	3.4	10.2	2	4	6	10

Table 2 Places in High School D. E. Programs, Including Best Places, Where Personal Characteristics Can Be Taught or Developed

(Total teacher-coordinators responding 334 - best places may not total 100% because of rounding)

The "yes" column indicates the per cent of the respondents who thought the personal characteristic could be taught in that location; the "best" column indicates the per cent who thought that would be the best place to teach it.

Personal Characteristics	D. E Classroom		DECA Program		On-The-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
Motivation or Caring About Job											
a. Knowing one's goal in life..............	91.6	49.5	66.3	6.2	78.3	28.0	48.3	7.3	16.4	9.0	11
b. Willingness to do routine work........	83.1	19.5	43.9	2.0	94.5	75.8	31.0	1.3	6.1	1.3	8
c. Willingness to do extra assignments...	91.4	38.9	70.5	23.6	85.8	33.4	38.5	3.7	3.7	0.3	9
d. Pride in doing work well...........	92.3	22.7	78.5	8.5	94.8	65.8	39.9	0.7	7.4	2.4	8
e. Enthusiasm..........	89.8	30.4	83.4	38.9	89.2	29.3	35.1	0.4	4.9	1.1	9
f. Aggressiveness......	84.9	24.4	72.8	17.6	88.6	54.1	29.9	1.8	6.2	2.2	10
g. Ambition............	87.3	32.1	75.3	12.6	88.6	49.1	33.0	2.2	8.6	4.0	10
h. Determination.......	85.5	35.5	70.2	14.3	88.9	45.9	31.4	1.4	7.1	2.9	9
i. Perserverance.......	85.5	31.1	68.2	7.4	91.0	58.3	32.1	1.4	6.2	1.8	10
Mental Ability											
a. Reasoning logically.	87.9	52.0	43.3	0.7	81.4	26.2	50.5	20.1	5.6	1.1	11
b. Imagination.........	85.2	34.3	76.7	32.8	83.0	25.1	41.0	7.4	5.4	0.4	17
c. Quickness to grasp meaning.............	88.7	48.2	44.3	2.2	80.8	32.8	45.9	15.7	3.1	1.1	16

Table 2 (continued)

Personal Characteristics	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
d. Ability to apply knowledge..........	80.3	16.3	63.7	2.5	92.2	76.2	35.0	4.3	3.4	0.7	14
e. Ability to analyze.	89.7	47.5	48.6	3.2	81.8	35.7	44.5	12.5	3.4	1.1	15
f. Alertness..........	86.9	25.9	57.8	5.4	87.2	59.4	40.6	8.3	4.1	1.1	14
g. Thinking quickly...	83.6	30.3	54.3	3.6	85.8	55.2	43.2	9.7	3.8	1.1	17
h. Memory.............	89.0	51.3	51.6	2.9	79.4	24.7	48.1	19.7	3.4	1.4	14
Human Relations											
a. Ability to take constructive criticism..........	94.7	33.6	61.9	3.4	93.8	59.6	38.4	3.4	4.9	0.0	11
b. Friendliness.......	89.5	27.3	77.7	27.6	91.9	41.8	38.7	2.2	6.8	1.1	11
c. Tactfulness........	91.9	34.9	73.3	5.3	93.5	55.9	35.4	2.1	5.3	1.8	12
d. Ability to get along with people (deal with people, customers, employees).........	86.4	14.8	73.1	2.7	96.6	81.4	28.2	0.7	4.9	0.3	11
e. Ability to talk easily with people.	89.2	21.5	76.8	19.0	95.1	56.7	32.8	2.4	4.9	0.3	11
f. Congeniality (pleasing personality)............	87.5	27.6	78.2	23.3	94.1	40.9	32.7	5.0	6.5	3.2	13
g. Outgoing--sociable.	81.4	13.8	84.5	52.4	89.0	26.9	31.5	5.1	6.6	1.8	17

Table 2 (continued)

Personal Characteristics	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
Work Habits and Work Behavior											
a. Willingness to abide by regulations.......	91.4	29.5	60.5	2.4	96.3	64.4	29.9	2.4	6.5	1.4	10
b. Loyalty...........	86.0	22.5	70.7	13.0	95.9	62.0	27.1	0.7	5.3	1.8	13
c. Attention to details...........	90.4	29.9	60.9	3.1	95.3	63.2	33.5	3.1	4.0	0.7	12
d. Willingness to work on own.......	88.5	20.0	70.5	17.5	93.8	59.3	32.6	2.5	5.3	0.7	12
e. Accuracy...........	93.8	38.2	56.1	1.8	94.1	55.5	39.6	4.6	2.5	0.0	13
f. Willingness to take orders.......	89.8	13.7	62.1	2.1	97.2	82.8	33.9	0.7	5.6	0.7	12
Leadership											
a. Willingness to assume responsibility............	82.1	13.3	88.3	44.6	91.9	40.1	31.8	0.7	5.6	1.4	10
b. Get people to work well.........	78.0	11.0	84.5	54.5	87.6	32.5	24.8	1.4	1.9	0.7	11
c. Desire to help others............	77.4	15.6	83.3	41.1	87.6	37.9	28.5	3.5	4.3	1.8	11
d. Ability to organize..........	83.9	22.5	88.8	56.7	83.2	15.7	29.2	4.8	2.5	0.3	12

Table 2 (continued)

	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
Attitude Toward Job											
a. Understanding what work means..........	92.6	30.6	50.6	2.0	94.8	67.3	19.4	0.0	3.4	0.0	10
b. Showing interest in job..............	87.0	15.0	46.3	2.0	95.9	82.7	14.8	0.3	1.5	0.0	10
c. Application to the task...............	83.5	12.5	54.0	1.7	97.2	84.8	17.7	0.7	1.9	0.3	12
Temperament											
a. Patience............	88.9	33.3	64.1	6.0	90.4	55.4	33.1	2.5	6.2	2.8	11
b. Control of temper...	89.1	34.8	60.9	5.6	89.8	53.0	31.7	2.8	6.2	3.8	12
c. Tolerance...........	90.1	33.2	64.8	8.7	90.4	50.7	31.8	3.8	6.2	3.5	10
Other Individual Personality & Behavioral Characteristics											
a. Positive attitude (optimism)..........	88.8	57.7	71.0	14.7	80.9	20.8	31.2	3.6	7.5	3.2	13
b. Dependability.......	90.0	28.6	72.0	7.4	91.3	58.3	31.2	3.2	6.9	2.5	13
c. Safety consciousness	79.3	16.0	39.3	1.0	94.1	80.5	23.8	2.1	5.6	0.3	11
d. Smile...............	91.5	40.9	68.3	10.4	93.4	44.6	28.2	1.3	5.9	2.7	15
e. Hand shake..........	82.7	45.2	62.9	15.4	81.4	36.2	18.9	1.4	6.0	1.8	16
f. Self-confidence.....	87.3	26.6	78.6	24.4	90.7	46.9	27.6	2.8	5.6	1.4	12
g. Sincerity...........	87.6	39.1	70.9	13.4	87.6	40.2	29.7	2.9	8.0	4.3	11
h. Initiative..........	87.6	25.6	75.8	20.7	91.9	50.9	27.6	1.8	5.6	1.1	11
i. Manners.............	93.1	48.2	78.7	21.8	85.6	18.9	30.7	4.6	11.9	6.4	15

Table 2 (continued)

	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
j. Willingness to take constructive criticism..........	92.9	43.9	66.3	5.9	91.0	46.7	28.2	2.1	5.9	1.4	11
k. Appearance.........	95.0	61.1	75.2	7.1	87.8	27.2	27.9	2.1	7.7	2.5	11
l. Honesty...........	93.8	47.1	70.6	6.2	91.0	38.0	32.2	2.9	12.1	5.8	11

High School Programs

Subject Areas for High School Distributive Education Classrooms

Table 3 shows the percentage of high school teacher-coordinators who said that each subject was not a distributive education subject. The subjects are ranked from the lowest percentage to the highest; thus a position at the head of the list with a percentage of 0.0 means complete agreement that the subject should be taught in the distributive education classroom; and a position at the bottom of the list means that a substantial proportion of the high school teacher-coordinators believe that the subject is not suitable for the distributive education classroom.

A question on the "additional training" survey (discussed in detail in the next chapter) provided a check on these scores. The respondent was asked in a screening question to so indicate if a given subject was not a distributive education subject or should not be taught in a distributive education classroom. The second column of Table 3 shows the percentage of respondents who did so.

Preferred Locations for Teaching High School Subject Areas

Table 4 shows, for each subject, the per cent of the respondents who believe it can best be taught in the places listed. The subjects are listed in order of the percentage agreeing that the distributive education classroom is the best place to teach the subject.

The coordinators believe that most of the subjects should be taught in the distributive education classroom. Also, there is substantial agreement that some subjects should be in the distributive education curriculum, but should not be taught by teacher-coordinators in the distributive education classroom. The list below shows those subjects for which there is over 50 per cent agreement that the subject should be taught outside the distributive education classroom. In addition, the last column shows the per cent who say that subject should be included in the distributive education curriculum.

Item	Per Cent In Non-D.E. Classroom (Ranked)	Per Cent Say In D. E. Curriculum
Punctuation	59.1	72.6
Bookkeeping	57.1	71.6
Penmanship	56.2	73.7
Basic grammar	55.0	69.1
Spelling	55.0	78.1
Letter writing	51.3	83.2
Typewriter	50.2	55.1

Table 3 Subject Ranking According to Whether High School Teacher-Coordinators Believe Subjects Should Be Included in the D. E. Curriculum

Subject	Per Cent[1]	Per Cent[2]
inventory records	0.0	3.5
business etiquette	0.0	7.0
stockkeeping and inventory control	0.0	2.6
credit	0.0	3.5
advertising	0.0	1.8
salesmanship	0.0	1.0
channels of distribution	0.3	3.5
ability to work with others	0.3	6.2
sales promotion	0.3	1.8
ability to deal with superiors	0.3	6.2
making change	0.3	24.6
fashion trends	0.6	3.5
buying	0.6	1.8
use of the telephone	1.0	24.6
business arithmetic	1.0	7.0
business procedures	1.2	8.8
cash register	1.5	26.3
type of business organization	1.5	7.0
role of profit	1.9	7.9
business locations	2.2	7.9
group discussion	2.3	7.0
ability to get others to work effectively	2.7	5.3
techniques and strategy for setting prices	2.8	13.2
sources of funds for starting and operating a business	2.8	11.4
free enterprise system in general	2.8	12.3
prepared talks	3.0	7.0
transportation	3.1	7.9
seasonal fluctuations	3.5	10.5
fair treatment of minorities	3.6	8.8
marketing research	4.2	7.9
person-to-person discussion	4.2	11.4
labor-management relations	4.3	9.6
supervision	4.3	7.0
internal organization relationships	4.6	7.9
local trade laws	5.6	21.0
federal laws and regulations	7.0	15.8
listening and observing	8.2	21.1

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[1] Indicates the per cent of the respondents to the time and place survey who indicated that the item does not belong in a D. E. curriculum at all.

[2] Indicates the per cent of the respondents to the additional training survey who indicated that the item is not a D. E. subject or should not be taught in a D. E. classroom.

Table 3 (continued)

Subject	Per Cent	Per Cent
money and banking	8.5	20.2
unions	8.9	14.0
weighing or measuring devices	9.1	37.7
insurance	9.4	21.0
mental arithmetic capability	9.6	30.7
forecasting	9.8	12.3
economic cycles	9.8	19.3
national income	11.1	22.0
world trade	11.2	14.0
business law	12.2	21.0
basic arithmetic	15.9	34.2
report writing	16.2	20.2
letter writing	16.8	25.4
reading financial statements	18.3	25.4
adding machine	21.0	45.6
spelling	21.9	39.5
penmanship	26.3	48.2
punctuation	27.4	42.1
bookkeeping	28.4	39.5
knowledge of data processing	28.6	25.4
basic grammar	30.9	45.6
reading for comprehension	31.6	50.0
calculator	39.5	55.3
reading fast	40.5	54.4
typewriter	44.9	60.5
accounting	46.9	36.0
statistics	47.8	36.0
cultural development	49.5	52.6
dictaphone	52.7	69.3
higher mathematics	65.4	54.4

Table 4 High School Coordinators' Opinions on Where
Distributive Education Subjects Should Be Taught
(Total teacher-coordinators responding 334 - less omitted responses shown in Table 1)

Subject	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
salesmanship	99.9	47.7	6.6	1.8
business etiquette	98.8	47.1	11.8	3.9
advertising	98.8	39.1	5.1	1.5
channels of distribution	97.6	21.7	9.3	1.5
sales promotion	97.2	40.7	4.2	2.4
ability to deal with people	96.7	45.9	8.8	3.0
credit	96.4	38.7	12.4	2.1
making change	96.4	39.9	6.9	1.8
business arithmetic	95.8	35.5	17.5	3.6
ability to work with others	95.8	51.1	14.8	2.7
buying	94.8	45.3	3.6	1.5
stockkeeping and inventory control	94.3	50.7	5.7	0.3
role of profit	94.0	20.1	20.4	2.8
ability to get others to work effectively	93.4	45.9	13.0	3.3
business locations	93.4	14.4	11.3	2.2
fashion trends	92.7	39.3	7.3	2.4
sources of funds for starting and operating a business	92.7	12.0	18.0	2.5
cash register	92.6	43.3	9.6	0.6
fair treatment of minorities	92.4	49.4	13.6	2.7
use of the telephone	92.4	28.9	15.6	2.3
transportation	92.2	29.5	6.8	1.2
type of business organization	92.0	19.6	18.6	2.4
inventory records	91.6	50.3	8.4	1.5
free enterprise system in general	91.3	12.8	23.7	3.7
business procedures	91.2	37.4	15.2	1.2
group discussion	90.9	9.7	27.9	3.7
marketing research	90.6	17.8	5.4	2.7
seasonal fluctuations	90.5	20.6	14.9	1.6

Table 4 (continued)

Subject	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
techniques and strategy for setting prices	89.4	29.1	16.2	2.8
person-to-person discussion	87.2	21.1	24.2	2.8
supervision	86.3	32.3	8.4	1.9
prepared talks	86.0	5.7	29.8	4.3
labor-management relations	85.5	30.2	15.7	3.4
internal organization relationships	84.6	30.9	12.3	1.5
local trade laws	79.2	22.0	20.1	2.5
federal laws and regulations	78.0	17.0	29.3	4.3
money and banking	75.2	13.2	32.3	4.4
forecasting	74.9	14.3	21.3	3.5
unions	74.8	19.1	29.3	3.5
listening and observing	72.5	29.2	33.3	5.8
world trade	72.3	9.7	24.3	3.1
insurance	70.8	9.7	34.0	2.7
economic cycles	69.5	5.4	34.6	3.8
mental arithmetic capability	67.7	22.4	33.2	4.3
national income	66.9	4.1	35.9	4.1
weighing or measuring devices	66.8	41.0	12.9	1.3
basic arithmetic	57.0	15.3	45.7	4.6
business law	53.0	9.1	49.1	4.3
reading financial statements	51.6	10.2	43.5	4.0
letter writing	50.0	4.3	51.3	4.9
adding machine	45.1	21.3	40.1	1.9
report writing	44.1	9.4	49.8	5.4
spelling	37.4	5.3	55.0	6.6
knowledge of data processing	34.8	11.4	42.2	4.9
bookkeeping	29.3	11.4	57.1	4.0
reading for comprehension	29.3	5.4	47.6	5.4
penmanship	25.9	5.4	56.2	6.1

Table 4 (continued)

Subject	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
punctuation	24.0	3.0	59.1	6.8
statistics	22.6	3.5	28.3	5.3
basic grammar	21.0	3.4	55.0	6.2
calculator	17.2	9.2	45.9	2.5
cultural development	14.3	3.4	38.0	7.2
reading fast	13.8	2.8	44.3	5.5
accounting	12.3	3.1	43.1	3.8
dictaphone	6.0	4.4	39.7	3.2
typewriter	4.4	2.8	50.2	2.8
higher mathematics	3.8	1.0	26.7	5.7

In accord with the same 50 per cent criterion, the following two subjects also should be in the distributive education curriculum, but can be taught either on the job or in the distributive education classroom.

Item	Per Cent On-the-Job	Per Cent Say In D. E. Curriculum
Ability to work with others	51.1	99.7
Stockkeeping and inventory control	50.7	100.0

Preferred High School Locations for Developing Personal Characteristics

Table 5 shows, for each personal characteristic, 4 places where it can be developed and the percentage who believe each location is best. The characteristics are listed in the order of the percentage who believe the distributive education classroom is the best place.

Coordinators believe many of these characteristics are not best developed in any classroom; and for only the first 4 characteristics (Appearance, Positive Attitude, Reasoning Logically, and Memory) do at least 50 per cent of the respondents believe the distributive education classroom is best. On the other hand, as the 2 lists below and on page 30 show, a majority of the coordinators believe many of the characteristics are best taught on the job, or in the DECA program.[1]

Characteristic	Per Cent Best Taught On the Job
Application to the task	85
Willingness to take orders	83
Showing interest in job	83
Ability to get along with people	81
Safety consciousness	81
Ability to apply knowledge	76
Willingness to do routine work	76
Understanding what work means	67
Pride in doing work well	66
Willingness to abide by regulations	64
Attention to details	63
Loyalty	62
Ability to take constructive criticism	60
Alertness	59
Willingness to work on own	59
Perseverance	58
Dependability	58
Ability to talk easily with people	57

(continued on page 30)

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[1] Percentages for DECA program are taken directly from Table 2, on pp. 16 to 20.

Table 5 High School Coordinators' Opinions on Where Personal Characteristics Should Be Taught
(Total teacher-coordinators responding 334 - less omitted responses shown in Table 2)

Personal Characteristics	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
Appearance	61.1	27.2	2.1	2.5
Positive attitude (optimism)	57.7	20.8	3.6	3.2
Reasoning logically	52.0	26.2	20.1	1.1
Memory	51.3	24.7	19.7	1.4
Knowing one's goal in life	49.5	28.0	7.3	9.0
Quickness to grasp meaning	48.2	32.8	15.7	1.1
Manners	48.2	18.9	4.6	6.4
Ability to analyze	47.5	35.7	12.5	1.1
Honesty	47.1	38.0	2.9	5.8
Hand shake	45.2	36.2	1.4	1.8
Willingness to take constructive criticism	43.9	46.7	2.1	1.4
Smile	40.9	44.6	1.3	2.7
Sincerity	39.1	40.2	2.9	4.3
Willingness to do extra assignments	38.9	33.4	3.7	0.3
Accuracy	38.2	55.5	4.6	0.0
Determination	35.5	45.9	1.4	2.9
Tactfulness	34.9	55.9	2.1	1.8
Control of temper	34.8	53.0	2.8	3.8
Imagination	34.3	25.1	7.4	0.4
Ability to take constructive criticism	33.6	59.6	3.4	0.0
Patience	33.3	55.4	2.5	2.8
Tolerance	33.2	50.7	3.8	3.5
Ambition	32.1	49.1	2.2	4.0
Perseverance	31.1	58.3	1.4	1.8
Understanding what work means	30.6	67.3	0.0	0.0
Enthusiasm	30.4	29.3	0.4	1.1
Thinking quickly	30.3	55.2	9.7	1.1
Attention to details	29.9	63.2	3.1	0.7

Table 5 (continued)

Personal Characteristics	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
Willingness to abide by regulations	29.5	64.4	2.4	1.4
Dependability	28.6	58.3	3.2	2.5
Congeniality (pleasing personality)	27.6	40.9	5.0	3.2
Friendliness	27.3	41.8	2.2	1.1
Self-confidence	26.6	46.9	2.8	1.4
Alertness	25.9	59.4	8.3	1.1
Initiative	25.6	50.9	1.8	1.1
Aggressiveness	24.4	54.1	1.8	2.2
Pride in doing work well	22.7	65.8	0.7	2.4
Loyalty	22.5	62.0	0.7	1.8
Ability to organize	22.5	15.7	4.8	0.3
Ability to talk easily with people	21.5	56.7	2.4	0.3
Willingness to work on own	20.0	59.3	2.5	0.7
Willingness to do routine work	19.5	75.8	1.3	1.3
Ability to apply knowledge	16.3	76.2	4.3	0.7
Safety consciousness	16.0	80.5	2.1	0.3
Desire to help others	15.6	37.9	3.5	1.8
Showing interest in job	15.0	82.7	0.3	0.0
Ability to get along with people	14.8	81.4	0.7	0.3
Outgoing - sociable	13.8	26.9	5.1	1.8
Willingness to take orders	13.7	82.8	0.7	0.7
Willingness to assume responsibility	13.3	40.1	0.7	1.4
Application to the task	12.5	84.8	0.7	0.3
Get people to work well	11.0	32.5	1.4	0.7

Characteristic	Per Cent Best Taught On the Job
Tactfulness	56
Accuracy	56
Patience	55
Thinking quickly	55
Aggressiveness	54
Control of temper	53
Initiative	51
Tolerance	51

Characteristic	Best Taught in DECA Program
Ability to organize	57
Get people to work well	55
Outgoing - sociable	52

Required Hours for High School Subject Areas

Table 6 shows the median number of hours which teacher-coordinators said they would need in order to raise their average students to each of 3 levels of understanding; namely:

1. Acquire a general notion of each subject item.

2. Talk intelligently about the subject and understand instructions concerning it.

3. Apply the subject individually in a given situation.

The subject areas are arranged in the order of the number of hours specified for the category entitled "Talk Intelligently About The Subject and Understand Instructions in It."

Time and Place for Most Important High School Subjects

Table 7 includes all those items[1] which employers (speaking of their non-supervisory employees) say are highly important or are only moderately important but seriously lacking in preparation.[2] For all

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[1] Even though businessmen say job knowledge is the most important knowledge and skill category, it is not included in Table 8 because it is so diverse that no attempt was made to measure the classroom hours it requires.

[2] These items were identified in the businessmen's survey reported in Volume 1, Table 3, pages 25 and 26.

Table 6 Number of Hours High School Coordinators Believe Are Necessary for the Following Levels of Achievement

Subject	General Notion (Median)	Max.	Min.	Ability to Talk About It (Median)	Max.	Min.	Ability to Apply on Job (Median)	Max.	Min.	Number of Respondents[1]
salesmanship	6	99	1	15	99	1	25	99	3	241
advertising	5	99	1	10	99	1	20	99	2	239
sales promotion	5	99	1	10	99	2	15	99	2	239
bookkeeping	5	40	1	10	60	1	15	70	2	56
typewriter	1	25	1	10	50	1	10	99	10	4
business arithmetic	5	30	1	9	40	1	15	75	1	230
reading for comprehension	5	99	1	8	99	1	15	99	1	36
marketing research	5	99	1	8	99	1	12	99	1	178
group discussion	3	40	1	6	40	1	10	80	1	151
prepared talks	4	99	1	6	99	1	10	99	1	160
basic arithmetic	5	50	1	6	40	1	10	99	2	111
buying	5	30	1	6	60	1	10	99	1	211
stockkeeping and inventory control	4	30	1	6	40	1	10	99	1	222
report writing	3	30	1	5	25	1	10	40	1	73
spelling	4	25	1	5	99	1	10	99	2	36
person-to-person discussion	3	90	1	5	90	1	7	90	1	133
listening and observing	2	99	1	5	99	1	6	99	1	102
mental arithmetic	3	20	1	5	40	1	7	75	1	111
higher mathematics	3	5	1	5	7	4	5	10	1	5
statistics	2	10	1	5	20	2	9	55	1	28
ability to get others to work effectively	2	99	1	5	99	1	8	60	1	194
ability to work with others	2	99	1	5	99	1	8	60	1	211
inventory records	2	15	1	5	50	1	8	99	1	202
credit	3	25	1	5	40	1	10	99	1	228
world trade	2	30	1	5	60	1	6	99	1	118
channels of distribution	3	20	1	5	40	1	9	99	1	243
accounting	3	5	1	5	70	2	8	99	2	14

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1. This is the number of respondents who indicated the required hours for Column H of Table 1 (Ability to Talk About It). For the other 2 median hours columns, the number may vary slightly.

Table 6 (continued)

Subject	General Notion (Median)	Max.	Min.	Ability to Talk About It (Median)	Max.	Min.	Ability to Apply on Job (Median)	Max.	Min.	Number of Respondents
calculator	2	15	1	5	10	1	10	40	2	73
techniques and strategy for setting prices	2	50	1	5	99	1	8	99	1	180
free enterprise system in general	2	30	1	5	45	1	8	75	1	212
money and banking	3	30	1	5	35	1	8	99	1	159
business law	3	40	1	5	60	1	10	99	1	106
cultural development	2	15	1	5	20	1	10	90	1	21
type of business organization	2	20	1	5	25	1	8	50	1	219
business procedures	3	30	1	5	35	1	9	50	1	208
letter writing	2	15	1	4	20	1	6	30	1	85
penmanship	2	12	1	4	20	1	6	90	1	23
punctuation	2	10	1	4	20	1	5	30	1	26
basic grammar	3	10	1	4	20	1	6	20	1	23
reading fast	1	18	1	4	36	2	5	40	3	15
fair treatment of minorities	2	99	1	4	99	1	5	40	1	194
ability to deal with superiors	2	60	1	4	60	1	5	60	1	216
business etiquette	2	99	1	4	99	1	5	99	1	208
fashion trends	2	15	1	4	50	1	6	99	1	197
transportation	2	20	1	4	50	1	6	99	1	193
reading financial statements	2	30	1	4	40	1	7	50	1	97
economic cycles	2	25	1	4	40	1	5	80	1	137
business locations	2	30	1	4	40	1	6	80	1	214
sources of funds	2	30	1	4	40	1	5	99	1	185
role of profit	2	25	1	4	30	1	5	99	1	208
knowledge of data processing	2	12	1	4	20	1	5	50	1	41
insurance	2	30	1	4	20	1	7	60	1	152
federal laws and regulations	2	25	1	4	30	1	6	50	1	167
unions	2	30	1	4	35	1	5	40	1	147
internal organization relations	2	30	1	4	30	1	5	50	1	185

Table 6 (continued)

Subject	General Notion (Median)	Max.	Min.	Ability to Talk About It (Median)	Max.	Min.	Ability to Apply on Job (Median)	Max.	Min.	Number of Respondents
supervision	2	45	1	4	45	1	8	99	1	184
labor-management relations	2	40	1	4	40	1	6	60	1	186
use of the telephone	2	30	1	3	51	1	5	25	1	171
making change	2	15	1	3	20	0	5	99	0	215
adding machine	1	20	1	3	20	1	5	30	1	73
cash register	2	30	1	3	20	1	6	99	1	197
weighing or measuring devices	2	15	1	3	20	1	5	99	1	102
forecasting	2	25	1	3	35	1	5	99	1	132
seasonal fluctuation	2	30	1	3	40	1	5	45	1	186
local trade laws	2	35	1	3	20	1	5	60	1	144
dictaphone	2	4	1	2	6	1	6	20	6	3
national income	1	15	1	2	15	1	4	50	1	123

Table 7 Time and Place for Most Important
High School Distributive Education Subjects

(Total teacher-coordinators responding for per cent figures 334 - less omitted responses shown in Table 1)

Item	Importance Rank[1]	Preparation Rank[1]	Doesn't Belong in D.E. Curriculum (per cent)	Best Taught in D.E. Classroom (per cent)	Teaching Hours to Apply (Median)[2]
Human Relations					
Ability to work with others	1	4	0.3	95.8	8
Ability to deal with superiors	3	3	0.3	96.7	5
Fair treatment of minorities	7	1	3.6	92.4	5
Business etiquette	8	5	0.0	98.8	5
Getting others to work effectively	13	20	2.7	93.4	8
Communications					
Listening and observing	2	12	8.2	72.5	6
Person-to-person discussion	5	8	4.2	87.2	7
Use of the telephone	10	7	1.0	92.4	5
Group discussion	20	11	2.3	90.9	10
Marketing					
Salesmanship	4	26	0.0	99.9	25
Mathematics					
Making change	11	2	0.3	96.4	5
Business arithmetic	21	33	1.0	95.8	15
Mental arithmetic capability	12	30	9.6	67.7	7
				Total	111 hrs.

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1. From Volume I, Table 3, pg. 25, columns 2 and 6, respectively.
2. From Volume II, Table 1, column I, page 11.

of these entries, there is substantial agreement among teacher-coordinators that the items can best be taught in a high school distributive education classroom. Because of the importance of the items, the list gives median judgment of classroom hours required to teach the average distributive education student to apply the item independently in a work situation. This arrangement permits the reader to relate at a glance importance and preparation to classroom hours. The total of the right-hand column shows that the median total distributive education classroom time which teacher-coordinators believe is necessary to teach the average student to apply these items independently in a work situation is 111 hours.

Place for Most Important Personal Characteristics for High School

Table 8 shows those personal characteristics which employers (speaking of their non-supervisory employees) say are most important or moderately important and seriously lacking in preparation. There is nothing even approaching unanimous agreement on where these should be taught or developed, although for most of them a majority favors On the Job. For only one (Appearance) does 50 per cent or more favor the distributive education classroom.

Conclusions for High Schools

The findings of this study indicate that coordinators believe most of the subjects on our list belong in the distributive education curriculum, but that some of them should not be taught in the distributive education classroom. This means that, for some subjects, teachers with special competence in the particular subject (English, math, etc.) should be called upon to either certify as to the distributive education students' competence or conduct special classes for them.

Further, the study suggests that although there is no majority agreement on where most personal characteristics are best developed, teacher-coordinators do agree that many personal characteristics should be developed on the job. The formal mechanism for accomplishing this needs investigation. It may be that a syllabus could be developed for employers participating in cooperative student employment programs, or it may be that the student should have the syllabus. Whatever the case may be, if such a formal mechanism is not feasible, the development of personal characteristics can still receive attention in the curriculum because the study demonstrates that teacher-coordinators have a strong belief that most of the characteristics can be developed, if necessary, in the distributive education classroom.

The tables on needed classroom hours show that to raise all students to the highest level in every subject would require far more hours than are available. However, a study of these tables suggests that by recognizing some subjects as more important than others, and by judiciously selecting the level of knowledge or skill for each, it is possible to design an effective distributive education program within the time limits available to most planners of high school programs.

Table 8 Place for Most Important Personal Characteristics for High School Distributive Education Programs

(Total teacher-coordinators responding for per cent figures 334 - less omitted responses shown in Table 2)

Item	Importance Rank[1]	Preparation Rank[1]	Best Taught in D.E. Classroom (%)	Best Taught On the Job (%)
Honesty	1	1	47	38
Dependability	2	4	29	58
Willingness to assume responsibility	16	21	13	40
Loyalty	3	6	23	62
Willingness to abide by regulations	4	5	30	64
Pride in doing work well	5	15	23	66
Initiative	7	28	26	51
Attention to details	6	22	30	63
Appearance	19	19	61	27
Enthusiasm	12	24	30	29
Tactfulness	13	25	35	56

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[1] From Volume I, Table 6, page 31, columns 1 and 5, respectively.

Community College Programs

Tables 9 and 10, beginning on the next page, are the general tables for this section.

Subject Areas for Community College Distributive Education Classrooms

Table 11 shows the percentage of community college teacher-coordinators who said that each subject was not a distributive education subject. The subjects are ranked from the lowest percentage to the highest; thus a position at the head of the list with a percentage of 0.0 means complete agreement that the subject should be taught in the distributive education classroom; a position at the bottom of the list means that a substantial proportion of the community college teacher-coordinators believe that the subject is not suitable for the distributive education classroom.

A question on the "Additional Training" survey (discussed in detail in the next chapter) provided a check on these scores. Each respondent was asked in a screening question to so indicate if a given subject was not a distributive education subject or should not be taught in a distributive education classroom. The second column in Table 11 gives that percentage of respondents who did so. Thus 0.3 as a per cent for "Ability to Work with Others" means 97.7 per cent thought it was a distributive education subject or should be taught in a distributive education classroom.

Preferred Locations for Teaching Community College Subject Areas

Table 12 shows, for each subject, the per cent of the respondents who believe it can best be taught in the places listed. The subjects are listed in order of the percentage agreeing that the distributive education classroom is the best place to teach the subject. A majority of coordinators agree that about 60 per cent of the subjects should be taught in the distributive education classroom. Also, there is substantial agreement that some subjects should be in the distributive education curriculum, but should not be taught by teacher-coordinators in the distributive education classroom. The list on page 53 shows those subjects for which there is over 50 per cent agreement that the subject should be taught outside the distributive education classroom. In addition, the last column shows the per cent who say that subject should be included in the distributive education curriculum.

Table 9 Time and Place for Specific Areas of Knowledge and Skills in Community College Distributive Education Programs

(Total teacher-coordinators responding 108 - best places may not total 100% because of rounding)

The first 6 columns show per cent of teachers who thought the statement in column heading applied to each item; next 3 columns show average (median) of teacher judgments on hours to each level for each knowledge/skill item. Final column indicates number of teachers who did not respond to the item.

	A	B	C	D	E	F	G	H	I	J
	Doesn't belong in D.E. curriculum (%)	In D.E. class (%)	On the job (%)	In non-D.E. class (%)	Other (%)	I have never taught it (%)	General notion (hrs)	Ability to talk about it (hrs)	Ability to apply on job (hrs)	Number of omitted responses (freq.)
Communications										
a. Writing										
1. Letter writing.....	16.7	25.5	2.0	61.8	1.0	16.7	8	10	25	6
2. Report writing.....	15.6	30.2	7.3	58.3	1.0	13.5	5	5	10	12
3. Spelling...........	29.6	13.3	4.1	58.2	1.0	13.3	4	6	10	10
4. Penmanship.........	37.1	15.5	2.1	50.5	1.0	7.2	2	8	10	11
5. Punctuation........	33.0	12.4	2.1	55.7	1.0	8.2	5	10	20	11
b. Oral presentation										
1. Group discussion..	5.0	73.0	3.0	35.0	4.0	14.0	3	6	10	8
2. Prepared talks....	7.3	66.7	2.1	39.6	3.1	15.6	4	5	10	12
3. Person-to-person discussion........	5.2	70.1	11.3	33.0	1.0	15.5	3	5	10	13
c. Basic grammar.........	32.7	7.1	1.0	61.2	1.0	6.1	1	1	20	10
d. Listening and observing............	16.0	51.0	20.0	37.0	1.0	19.0	2	4	6	8
e. Reading										
1. Reading for comprehension......	34.0	10.0	1.0	55.0	3.0	5.0	8	15	20	8
2. Reading fast.......	38.5	3.1	1.0	52.1	4.2	5.2	5	10	11	12
f. Use of the telephone..	11.8	72.5	19.6	12.7	0.0	22.5	2	3	4	6

Table 9 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq)
Mathematics										
a. Basic arithmetic (addition, subtraction, division, multiplication).......	28.2	30.1	6.8	53.4	1.0	8.7	5	10	14	5
b. Business arithmetic (discounts, mark-ups, mark-downs)...........	1.9	85.6	20.2	21.2	1.0	16.3	5	10	15	4
c. Mental arithmetic capability............	27.8	36.1	14.4	35.1	2.1	14.4	2	4	6	11
d. Making change.........	6.9	75.5	32.4	8.8	3.9	18.6	2	3	4	5
e. Higher mathematics....	52.0	6.0	1.0	39.0	3.0	7.0	5	15	40	8
f. Statistics...........	40.2	23.5	1.0	36.3	4.9	8.8	5	10	15	6
Human Relations										
a. Ability to get others to work effectively...	1.9	87.5	40.4	22.1	1.9	12.5	5	8	10	4
b. Ability to work with others................	0.0	92.3	45.2	18.3	1.9	17.3	5	6	10	4
c. Fair treatment of minorities (customers and employees)........	4.7	80.6	38.8	21.4	1.9	16.5	3	6	12	5
d. Ability to deal with superiors............	0.0	91.3	40.8	17.5	1.9	16.5	5	6	10	5
e. Business etiquette....	1.0	93.3	36.2	11.4	1.9	20.0	3	5	8	3

Table 9 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Marketing										
a. Salesmanship...........	0.0	95.2	40.0	4.8	1.0	12.4	10	15	30	3
b. Marketing research.....	7.8	81.4	13.7	9.8	0.0	16.7	3	10	25	6
c. Advertising............	0.0	98.0	27.5	3.9	0.0	12.7	6	15	30	5
d. Sales promotion (display, contests, tradeshows)............	0.9	96.1	35.0	2.9	1.9	17.5	5	10	20	3
e. Inventory records......	0.0	86.7	38.1	9.5	0.9	21.9	3	5	10	3
f. Fashion trends.........	2.9	88.6	34.3	2.9	0.9	21.9	3	4	9	4
g. Buying.................	2.9	88.5	37.5	3.8	0.0	20.2	5	10	20	3
h. Transportation.........	2.9	81.0	25.7	12.4	0.0	26.7	2	5	10	5
i. Stockkeeping and inventory control......	0.0	87.4	42.7	9.7	0.0	21.4	3	5	15	4
j. Credit.................	0.9	89.4	32.7	9.6	0.9	16.3	5	9	15	4
k. World trade............	21.8	46.5	6.9	29.7	3.7	21.8	2	4	8	7
l. Channels of distribution..............	0.9	93.3	14.4	8.7	0.0	11.5	3	8	15	4
Financial Records										
a. Bookkeeping............	20.4	30.1	11.7	54.4	0.9	9.7	10	20	26	5
b. Reading financial statements.............	15.5	42.7	11.7	51.5	2.9	9.7	5	8	10	5
c. Accounting (more than bookkeeping and reading financial statements)..	24.0	17.3	4.8	58.7	1.9	6.7	30	36	60	4

Table 9 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Machines of Business										
a. Typewriter	31.1	12.6	2.9	51.5	2.9	9.7	6	36	42	5
b. Dictaphone	45.1	7.8	4.9	43.1	1.9	9.8	2	3	4	6
c. Calculator	21.4	25.2	13.6	51.5	0.9	12.6	2	5	8	5
d. Adding machine	14.3	38.1	19.0	43.8	0.0	13.3	2	5	5	3
e. Cash register	3.8	70.2	46.2	11.5	0.9	22.1	2	3	5	4
f. Weighing or measuring devices	12.6	54.4	37.0	12.6	1.9	24.3	1	2	4	5
Economics										
a. Techniques and strategy for setting prices	7.8	65.0	20.4	36.9	0.0	19.4	3	5	10	5
b. Free enterprise system in general	5.8	60.2	10.7	42.7	1.9	15.5	3	5	8	5
c. National income	15.7	36.3	3.9	52.9	3.9	14.7	3	5	10	6
d. Economic cycles	16.5	34.0	5.8	53.4	3.9	11.7	2	5	9	5
e. Business locations	4.9	80.6	13.6	19.4	0.0	16.5	2	4	8	5
f. Forecasting	11.9	63.4	17.8	31.7	1.9	14.9	3	4	9	7
g. Seasonal fluctuations	6.0	74.0	21.0	23.0	2.0	14.0	2	4	5	8
h. Money and banking (banking services and activities, role of money, etc.)	10.7	41.7	9.7	50.5	2.9	14.6	2	6	8	5
i. Sources of funds for starting and operating a business	6.8	72.8	9.7	32.0	7.4	17.5	2	5	9	5
j. Role of profit	5.9	74.5	17.6	34.3	0.9	15.7	2	6	10	6

Table 9 (continued)

	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)	G (hrs)	H (hrs)	I (hrs)	J (freq.)
Other Knowledge										
a. Knowledge of data processing...........	16.3	28.8	7.7	55.8	2.9	17.3	2	4	20	4
b. Insurance............	12.5	47.1	9.6	45.2	1.9	13.5	2	4	10	4
c. Local trade laws.....	9.4	66.0	22.6	19.8	1.9	21.7	2	3	5	2
d. Business law..........	6.6	43.3	5.7	56.6	0.9	16.0	10	10	26	2
e. Federal laws and regulations..........	11.7	54.4	13.6	39.9	0.9	13.6	3	6	10	5
f. Unions...............	9.7	59.2	13.6	38.8	2.9	17.5	2	4	7	5
g. Cultural development (appreciation of literature, art, and music)...............	44.2	4.8	2.9	48.1	5.8	4.8	1	1	1	4
Business Organization, Procedure and Management										
a. Type of business organization.........	3.8	78.3	8.5	26.4	0.0	10.4	3	5	10	2
b. Business procedures (orders, invoices, deliveries, etc.)....	0.9	88.5	33.7	14.4	0.0	18.3	3	6	10	3
c. Internal organization relationships........	3.8	79.8	22.1	22.1	0.0	14.4	3	6	8	4
d. Supervision..........	1.9	85.8	26.4	21.7	1.9	13.2	5	10	15	2
e. Labor-management relationships........	8.6	68.6	21.9	29.5	2.9	11.4	3	8	12	3

Table 10 Places in Community College D. E. Programs, Including Best Places, Where Personal Characteristics Can Be Taught or Developed
(Total teacher-coordinators responding 108 - best places may not total 100% because of rounding)

The "yes" column indicates the per cent of the respondents who thought the personal characteristic could be taught or developed in that location; the "best" column indicates the per cent who tought that would be the best place to teach or develop it.

Personal Characteristics	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
Motivation or Caring About Job											
a. Knowing one's goal in life............	84.6	43.8	66.3	9.0	73.1	27.0	50.0	7.9	23.1	12.4	4
b. Willingness to do routine work.......	76.2	20.8	53.3	5.2	85.7	68.8	34.3	2.1	8.6	3.1	3
c. Willingness to do extra assignments..	83.5	36.2	67.0	23.4	76.7	35.1	35.9	2.1	6.8	3.2	5
d. Pride in doing work well..........	90.4	24.7	71.2	15.1	90.4	55.9	39.4	0.0	9.6	4.3	4
e. Enthusiasm.........	86.3	31.8	76.5	22.7	81.4	40.9	32.4	1.1	7.8	3.4	6
f. Aggressiveness.....	83.2	33.0	61.4	15.9	80.2	42.0	29.7	2.3	9.9	6.8	7
g. Ambition...........	79.6	35.6	69.9	13.8	85.4	40.2	39.8	3.4	12.6	6.9	5
h. Determination......	80.2	38.3	65.3	12.3	85.1	40.7	35.6	3.7	9.9	4.9	7
i. Perserverance......	81.6	26.5	64.1	9.6	85.4	55.4	38.8	3.6	9.7	4.8	5
Mental Ability											
a. Reasoning logically	88.2	60.0	40.2	33.3	70.6	11.1	57.8	23.3	4.9	2.2	6
b. Imagination........	83.3	37.6	66.7	25.9	75.5	27.1	38.2	3.5	7.8	5.9	6
c. Quickness to grasp meaning...........	87.1	57.3	47.5	2.2	75.2	23.6	46.5	14.6	5.9	2.2	7

Table 10 (continued)

	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
d. Ability to apply knowledge..........	76.2	16.0	59.4	2.1	89.1	76.6	30.7	3.2	5.0	2.1	7
e. Ability to analyze.	92.1	52.9	49.5	4.7	82.2	30.6	42.6	8.2	4.9	3.5	7
f. Alertness..........	92.9	40.2	46.5	3.7	85.9	50.0	37.4	3.7	7.1	2.4	9
g. Thinking quickly...	88.1	45.3	46.5	4.7	83.2	39.5	43.6	8.1	5.9	2.3	7
h. Memory.............	89.2	54.9	44.1	6.1	75.5	18.3	50.0	18.3	4.9	2.4	6
Human Relations											
a. Ability to take constructive criticism..........	91.1	37.8	64.4	11.1	84.2	42.2	39.6	4.4	6.9	4.4	7
b. Friendliness.......	79.2	28.9	76.2	21.1	88.1	38.9	33.7	4.4	7.9	6.7	7
c. Tactfulness........	82.8	33.0	63.6	12.5	84.8	45.5	32.3	4.5	7.1	4.5	9
d. Ability to get along with people (deal with people, customers, employees).........	79.4	11.6	67.6	5.3	91.2	77.9	31.4	2.1	6.9	3.2	6
e. Ability to talk easily with people.	82.2	21.6	78.2	19.3	86.1	52.3	34.7	2.3	5.9	4.5	7
f. Congeniality (pleasing personality)............	80.4	27.0	75.5	22.5	79.4	38.2	33.3	5.6	8.8	6.7	6
g. Outgoing--sociable.	72.3	13.5	80.2	42.7	81.2	32.6	30.7	4.5	9.9	6.7	7

Table 10 (continued)

	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
Work Habits and Work Behavior											
a. Willingness to abide by regulations........	86.5	29.5	56.7	4.2	92.3	62.1	31.7	0.0	8.7	4.2	4
b. Loyalty...........	71.8	17.9	63.1	8.4	89.3	66.3	26.2	2.1	7.8	5.3	5
c. Attention to details...........	82.2	33.3	53.5	3.3	91.9	56.7	35.6	3.3	7.9	3.3	7
d. Willingness to work on own............	83.3	33.0	68.6	9.6	91.2	54.3	32.4	0.0	5.9	3.2	6
e. Accuracy..........	92.2	46.8	46.6	0.0	90.3	45.7	46.7	4.3	6.8	3.2	5
f. Willingness to take orders........	86.4	17.9	54.4	3.2	94.2	73.7	35.9	0.0	9.7	5.3	5
Leadership											
a. Willingness to assume responsibility............	74.8	14.6	80.4	38.5	85.0	42.7	29.9	1.0	7.5	3.1	1
b. Get people to work well..........	67.0	11.5	77.4	43.8	83.0	41.7	27.4	0.0	5.7	3.1	2
c. Desire to help others............	64.8	11.7	78.1	36.2	84.8	41.5	30.5	3.2	9.5	7.4	3
d. Ability to organize	79.4	32.7	83.2	42.9	80.4	20.4	33.6	1.0	5.6	3.1	1

Table 10 (continued)

	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
Attitude Toward Job											
a. Understanding what work means..........	81.3	28.9	47.7	0.0	90.7	68.0	17.8	1.0	8.4	2.1	1
b. Showing interest in job.............	76.6	10.2	48.6	3.1	92.5	84.7	18.7	1.0	5.6	1.0	1
c. Application to the task................	78.1	15.1	56.2	3.2	90.5	78.5	21.0	1.1	4.8	2.2	3
Temperament											
a. Patience............	77.1	30.1	61.9	10.8	87.6	49.5	33.3	3.2	11.4	6.5	3
b. Control of temper...	72.1	28.6	61.5	8.8	86.5	50.5	31.7	4.4	12.5	7.7	4
c. Tolerance...........	78.1	23.7	68.6	12.9	85.7	51.6	36.2	3.2	12.4	8.6	5
Other Individual Personality & Behavioral Characteristics											
a. Positive attitude (optimism)..........	87.4	53.3	70.9	15.6	77.7	20.0	35.9	2.2	11.7	8.9	4
b. Dependability.......	82.7	28.9	68.3	10.0	86.5	51.1	35.6	2.2	10.6	7.8	4
c. Safety consciousness	68.3	14.9	44.2	4.3	90.4	72.3	24.0	3.2	8.6	5.3	7
d. Smile...............	82.2	35.2	71.3	7.7	83.2	42.9	33.7	6.6	11.9	7.7	7
e. Hand shake..........	78.2	41.9	69.3	9.7	76.2	36.6	26.7	7.5	8.9	4.3	4
f. Self-confidence.....	78.8	27.2	71.2	23.9	88.5	39.1	32.7	4.3	8.7	5.4	7
g. Sincerity...........	80.2	38.6	70.3	14.8	81.2	34.1	31.7	6.8	10.9	5.7	6
h. Initiative..........	82.4	34.1	70.6	15.9	84.3	42.0	33.3	2.3	8.8	5.7	6
i. Manners.............	89.2	43.0	68.6	16.1	78.4	20.4	36.3	8.6	14.7	11.8	5

Table 10 (continued)

	D. E. Classroom		DECA Program		On-the-Job		Non D. E. Classroom		Other		Number Who Did Not Answer
	yes	best	yes	best	yes	best	yes	best	yes	best	
j. Willingness to take constructive criticism...........	86.4	40.2	65.0	11.3	82.5	42.3	33.0	2.1	9.7	4.1	5
k. Appearance..........	91.3	53.3	71.8	6.5	84.5	28.3	30.1	4.3	12.6	7.6	5
l. Honesty.............	85.4	46.1	67.0	4.5	83.5	32.6	35.9	5.6	16.5	11.2	10

Table 11 Subject Ranking According to Whether Community College Teacher-Coordinators Believe Subjects Should Be Included in the D. E. Curriculum

Subject	Per Cent[1]	Per Cent[2]
ability to work with others	0.0	0.3
ability to deal with superiors	0.0	1.0
salesmanship	0.0	0.6
advertising	0.0	1.0
inventory records	0.0	4.5
stockkeeping and inventory control	0.0	1.0
business procedures	0.9	2.5
sales promotion	0.9	0.6
credit	0.9	0.6
channels of distribution	0.9	1.0
business etiquette	1.0	1.0
supervision	1.9	7.0
business arithmetic	1.9	1.0
ability to get others to work effectively	1.9	4.8
fashion trends	2.9	5.1
buying	2.9	2.2
transportation	2.9	7.0
cash register	3.8	3.5
type of business organization	3.8	2.9
internal organization relations	3.8	7.0
fair treatment of minorities	4.7	3.5
business locations	4.9	3.5
group discussion	5.0	4.1
person-to-person discussion	5.2	8.0
free enterprise system	5.8	3.2
role of profit	5.9	1.9
seasonal fluctuations	6.0	6.4
business law	6.6	15.6
sources of funds for starting and operating a business	6.8	4.1
making change	6.9	1.6
prepared talks	7.3	4.5
techniques and strategy for setting prices	7.8	6.4
marketing research	7.8	8.3
labor-management relations	8.6	6.7
local trade laws	9.4	8.9
unions	9.7	10.8
money and banking	10.7	9.5
federal laws and regulations	11.7	8.3

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[1] Indicates the per cent of the respondents to the time and place survey who indicated that the item does not belong in a D. E. curriculum at all.

[2] Indicates the per cent of the respondents to the additional training survey who indicated that the item is not a D. E. subject or should not be taught in a D. E. classroom.

Table 11 (continued)

Subject	Per Cent	Per Cent
use of the telephone	11.8	4.8
forecasting	11.9	14.0
insurance	12.5	14.3
weighing or measuring devices	12.6	20.1
adding machine	14.3	37.9
reading financial statements	15.5	30.6
report writing	15.6	24.2
national income	15.7	15.3
listening and observing	16.0	13.7
knowledge of data processing	16.3	42.4
economic cycles	16.5	13.7
letter writing	16.7	26.1
bookkeeping	20.4	43.3
calculator	21.4	62.4
world trade	21.8	17.8
accounting	24.0	63.1
mental arithmetic capability	27.8	15.3
basic arithmetic	28.2	14.6
spelling	29.6	34.1
typewriter	31.1	74.2
basic grammar	32.7	39.5
punctuation	33.0	40.4
reading for comprehension	34.0	43.0
penmanship	37.1	41.4
reading fast	38.5	55.1
statistics	40.2	49.0
cultural development	44.2	59.2
dictaphone	45.1	74.8
higher mathematics	52.0	63.4

Table 12 Community College Coordinators' Opinion on Where Distributive Education Subjects Should be Taught

(Total teacher-coordinators responding 108 - less omitted responses shown in Table 9)

Subject	In a D.E. Classroom (Per Cent)	On the Job (Per Cent)	In a Non-D.E. Classroom (Per Cent)	Other (Per Cent)
advertising	98.0	27.5	3.9	0.0
sales promotion	96.1	35.0	2.9	1.9
salesmanship	95.2	40.0	4.8	1.0
channels of distribution	93.3	14.4	8.7	0.0
business etiquette	93.3	36.2	11.4	1.9
ability to work with others	92.3	45.2	18.3	1.9
ability to deal with superiors	91.3	40.8	17.5	1.9
credit	89.4	32.7	9.6	.9
fashion trends	88.6	34.3	2.9	.9
business procedures	88.5	33.7	14.4	0.0
buying	88.5	37.5	3.8	0.0
ability to get others to work effectively	87.5	40.4	22.1	1.9
inventory control	87.4	42.7	9.7	0.0
inventory records	86.7	38.1	9.5	.9
supervision	85.8	26.4	21.7	1.9
business arithmetic	85.6	20.2	21.2	1.0
marketing research	81.4	13.7	9.8	0.0
transportation	81.0	25.7	12.4	0.0
fair treatment of minorities	80.6	38.8	21.4	1.9
business locations	80.6	13.6	19.4	0.0
internal organization	79.8	22.1	22.1	0.0
type of business organization	78.3	8.5	26.4	0.0
making change	75.5	32.4	8.8	3.9
role of profit	74.5	17.6	34.3	.9
seasonal fluctuations	74.0	21.0	23.0	2.0
group discussion	73.0	3.0	35.0	4.0
source of funds	72.8	9.7	32.0	7.4
use of the telephone	72.5	19.6	12.7	0.0

Table 12 (continued)

Subject	In a D.E. Classroom (Per Cent)	On the Job (Per Cent)	In a Non-D.E. Classroom (Per Cent)	Other (Per Cent)
cash register	70.2	46.2	11.5	.9
person to person discussion	70.1	11.3	33.0	1.0
labor management relations	68.6	21.9	29.5	2.9
prepared talks	66.7	2.1	39.6	3.1
local trade laws	66.0	22.6	19.8	1.9
techniques and strategy for setting prices	56.0	20.4	36.9	0.0
forecasting	63.4	17.8	31.7	1.9
free enterprise system	60.2	10.7	42.7	1.9
unions	59.2	13.6	38.8	2.9
federal laws and regulations	54.4	13.6	39.9	.9
weighing or measuring	54.4	37.0	12.6	1.9
listening and observing	51.0	20.0	37.0	1.0
insurance	47.1	9.6	45.2	1.9
world trade	46.5	6.9	29.7	3.7
business law	43.3	5.7	56.6	.9
reading financial statements	42.7	11.7	51.5	2.9
money and banking	41.7	9.7	50.5	2.9
adding machine	38.1	19.0	43.8	0.0
national income	36.3	3.9	52.9	3.9
mental arithmetic	36.1	14.4	35.1	2.1
economic cycles	34.0	5.8	53.4	3.9
report writing	30.2	7.3	58.3	1.0
bookkeeping	30.1	11.7	54.4	.9
basic arithmetic	30.1	6.8	53.4	1.0
knowledge of data processing	28.8	7.7	55.8	2.9
letter writing	25.5	2.0	61.8	1.0
calculator	25.2	13.6	51.5	.9
statistics	23.5	1.0	36.3	4.9
accounting	17.3	4.8	58.7	1.9
penmanship	15.5	2.1	50.5	1.0

Table 12 (continued)

Subject	In a D.E. Classroom (Per Cent)	On the Job (Per Cent)	In a Non-D.E. Classroom (Per Cent)	Other (Per Cent)
spelling	13.3	4.1	58.2	1.0
typewriter	12.6	2.9	51.5	2.9
punctuation	12.4	2.1	55.7	1.0
reading for comprehension	10.0	1.0	55.0	3.0
dictaphone	7.8	4.9	43.1	1.9
basic grammar	7.1	1.0	61.2	1.0
higher mathematics	6.0	1.0	39.0	3.0
cultural development	4.8	2.9	48.1	5.8
reading fast	3.1	1.0	52.1	4.2

2

Item	Per Cent In Non-D.E. Classroom (Ranked)	Per Cent Say In D. E. Curriculum
Letter writing	61.8	83.3
Basic grammar	61.2	67.3
Accounting	58.7	76.0
Report writing	58.3	84.4
Spelling	58.2	70.4
Business law	56.6	93.4
Knowledge of data processing	55.8	83.7
Punctuation	55.7	67.0
Reading for comprehension	55.0	66.0
Bookkeeping	54.4	79.6
Basic arithmetic	53.4	71.8
Economic cycles	53.4	83.5
National income	52.9	84.3
Reading fast	52.1	61.5
Typewriter	51.5	68.9
Calculator	51.5	78.6
Reading financial statements	51.5	84.5
Money and banking	50.5	89.3
Penmanship	50.5	62.9

Preferred Community College Locations for Developing Personal Characteristics

Table 13 shows, for each personal characteristic, 4 places where it can be developed and the percentage of community college teacher-coordinators who believe each location is best. The subjects are listed in the order of the percentage who believe the distributive education classroom is the best place.

The table shows that coordinators believe most of these characteristics are not best developed in any classroom, and for only the first 6[1] do at least 50 per cent agree that the distributive education classroom is best. As the list on page 56 shows, a majority of the coordinators believe 19 of the 52 characteristics are best taught or developed on the job.

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1. These 6 are Reasoning Logically, Quickness to Grasp Meaning, Memory, Positive Attitude (Optimism), Appearance, and Ability to Analyze.

Table 13 Community College Coordinators' Opinions on Where Personal Characteristics Should Be Taught
(Total teacher-coordinators responding 108 - less omitted responses shown in Table 10)

Personal Characteristics	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
Reasoning logically	60.0	11.1	23.3	2.2
Quickness to grasp meaning	57.3	23.6	14.6	2.2
Memory	54.9	18.3	18.3	2.4
Positive attitude (optimism)	53.3	20.0	2.2	8.9
Appearance	53.3	28.3	4.3	7.6
Ability to analyze	52.9	30.6	8.2	3.5
Accuracy	46.8	45.7	4.3	3.2
Honesty	46.1	32.6	5.6	11.2
Thinking quickly	45.3	39.5	8.1	2.3
Knowing one's goal in life	43.8	27.0	7.9	12.4
Manners	43.0	20.4	8.6	11.8
Hank shake	41.9	36.6	7.5	4.3
Willingness to take constructive criticism	40.2	42.3	2.1	4.1
Alertness	40.2	50.0	3.7	2.4
Sincerity	38.6	34.1	6.8	5.7
Determination	38.3	40.7	3.7	4.9
Ability to take constructive criticism	37.8	42.2	4.4	4.4
Imagination	37.6	27.1	3.5	5.9
Willingness to do extra assignments	36.2	35.1	2.1	3.2
Ambition	35.6	40.2	3.4	6.9
Smile	35.2	42.9	6.6	7.7
Initiative	34.1	42.0	2.3	5.7
Attention to details	33.3	56.7	3.3	3.3
Aggressiveness	33.0	42.0	2.3	6.8
Tactfulness	33.0	45.5	4.5	4.5
Willingness to work on own	33.0	54.3	0.0	3.2
Ability to organize	32.7	20.4	1.0	3.1
Enthusiasm	31.8	40.9	1.1	3.4
Patience	30.1	49.5	3.2	6.5

Table 13 (continued)

Personal Characteristics	In a D.E. Classroom (per cent)	On the Job (per cent)	In a Non-D.E. Classroom (per cent)	Other (per cent)
Willingness to abide by regulations	29.5	62.1	0.0	4.2
Friendliness	28.9	38.9	4.4	6.7
Understanding what work means	28.9	68.0	1.0	2.1
Dependability	28.9	51.1	2.2	7.8
Control of temper	28.6	50.5	4.4	7.7
Self-confidence	27.2	39.1	4.3	5.4
Congeniality (pleasing personality)	27.0	38.2	5.6	6.7
Perseverance	26.5	55.4	3.6	4.8
Pride in doing work well	24.7	55.9	0.0	4.3
Tolerance	23.7	51.6	3.2	8.6
Ability to talk easily with people	21.6	52.3	2.3	4.5
Willingness to do routine work	20.8	68.8	2.1	3.1
Loyalty	17.9	66.3	2.1	5.3
Willingness to take orders	17.9	73.7	0.0	5.3
Ability to apply knowledge	16.0	76.6	3.2	2.1
Application to the task	15.1	78.5	1.1	2.2
Safety consciousness	14.9	72.3	3.2	5.3
Willingness to assume responsibility	14.6	42.7	1.0	3.1
Outgoing - sociable	13.5	32.6	4.5	6.7
Desire to help others	11.7	41.5	3.2	7.4
Ability to get along with people	11.6	77.9	2.1	3.2
Get people to work well	11.5	41.7	0.0	3.1
Showing interest in job	10.2	84.7	1.0	1.0

Characteristics	Per Cent Best Taught On Job
Showing interest in job	84.7
Application to the task	78.5
Ability to get along with people	77.9
Ability to apply knowledge	76.6
Willingness to take orders	73.7
Safety consciousness	72.3
Willingness to do routine work	68.8
Understanding what work means	68.0
Loyalty	66.3
Willingness to abide by regulations	62.1
Attention to details	56.7
Pride in doing work well	55.9
Perseverance	55.4
Willingness to work on own	54.3
Ability to talk easily with people	52.3
Tolerance	51.6
Dependability	51.1
Control of temper	50.5
Alertness	50.0

Required Hours for Community College Subject Areas

Table 14 shows the median number of hours which teacher-coordinators said they would need in order to raise their average students to each of 3 levels of understanding, namely:

1. Acquire a general notion of each subject item.
2. Talk intelligently about the subject and understand instructions concerning it.
3. Apply the subject individually in a given situation.

The subject areas are arranged in the order of the number of hours specified for the category, entitled "Talk Intelligently About the Subject and Understand Instructions in It."

Time and Place to Teach Most Important Community College Subjects

Table 15 includes all those items[1] which employers (speaking of supervisory employees) say are either highly or moderately important but seriously lacking in preparation.[2] Most items reflect substantial

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[1] Even though businessmen say job knowledge is the most important knowledge skill category, it is not included; it is so diverse that no attempt was made to measure classroom hours required.

[2] These items were identified in the "Business Survey" reported in Volume I, Table 3, page 25.

Table 14 Number of Hours Community College Coordinators Believe Are Necessary for the Following Levels of Achievement

Subject	General Notion (Median)	Max.	Min.	Ability to Talk About It (Median)	Max.	Min.	Ability to Apply on Job (Median)	Max.	Min.	Number of Respondents[1]
typewriter	6	60	2	36	99	4	42	99	6	7
accounting	30	99	3	36	99	6	60	99	10	11
bookkeeping	10	60	1	20	90	2	26	99	3	17
advertising	6	99	1	15	99	2	30	99	3	57
salesmanship	10	99	1	15	99	2	30	99	3	56
higher mathematics	5	20	5	15	30	15	40	40	40	2
reading for comprehension	8	10	5	15	25	10	20	50	20	4
buying	5	54	1	10	99	1	20	99	3	45
sales promotion	5	54	1	10	54	2	20	80	3	55
marketing research	3	30	1	10	40	1	25	99	1	45
letter writing	8	20	3	10	25	5	25	40	10	9
business arithmetic	5	30	1	10	40	1	15	90	2	53
business law	10	30	2	10	50	3	26	90	6	23
supervision	5	45	1	10	90	2	15	99	2	50
statistics	5	15	1	10	30	1	15	60	1	11
basic arithmetic	5	20	1	10	30	1	14	40	2	16
punctuation	5	20	1	10	30	2	20	40	3	4
reading fast	5	10	5	10	30	10	11	15	15	2
credit	5	54	1	9	54	1	15	99	1	51
ability to get others to work effectively	5	45	1	8	60	1	10	99	1	49
channels of distribution	3	50	1	8	50	1	15	54	1	56
labor management relations	3	25	1	8	50	1	12	99	1	42
reading financial statements	5	15	1	8	30	2	10	60	2	28
penmanship	2	15	1	8	15	1	10	40	1	4
business procedures	3	12	1	6	20	1	10	40	2	50
ability to work with others	5	45	1	6	45	1	10	45	1	47
ability to work with superiors	5	45	1	6	45	1	10	99	1	45
fair treatment of minorities	3	45	1	6	45	1	12	99	1	41

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1. This is the number of respondents who indicated the required hours for Col. H of Table 9 (Ability to Talk About It). For the other 2 median hour columns, the number may vary slightly.

Table 14 (continued)

Subject	General Notion (Median)	Max.	Min.	Ability to Talk About It (Median)	Max.	Min.	Ability to Apply on Job (Median)	Max.	Min.	Number of Respondents
role of profit	2	15	1	6	25	1	10	30	1	43
money and banking	2	54	1	6	54	1	8	99	3	23
internal organization	3	40	1	6	40	1	8	50	1	47
group discussion	3	40	1	6	50	1	10	60	1	31
federal laws and regulations	3	30	1	6	20	1	10	45	1	24
spelling	4	30	1	6	30	1	10	50	3	5
transportation	2	25	1	5	25	1	10	99	1	36
inventory records	3	99	1	5	99	1	10	99	1	43
inventory control	3	99	1	5	99	1	15	99	1	41
business etiquette	3	15	1	5	30	1	8	45	1	47
techniques and strategy for setting prices	3	16	1	5	32		10	48	2	33
source of funds	2	16	1	5	32	1	9	48	1	43
prepared talks	4	40	1	5	50	2	10	60	3	30
person-to-person discussion	3	25	1	5	40	1	10	60	2	33
free enterprise system	3	20	1	5	32	1	8	48	1	33
national income	3	12	1	5	18	1	10	30	2	22
report writing	5	15	2	5	20	2	10	30	4	8
adding machine	2	10	1	5	60	1	5	60	1	20
calculator	2	10	1	5	60	1	8	60	1	11
economic cycles	2	12	1	5	18	1	9	25	2	18
type of business organization	3	20	1	5	30	1	10	40	3	51
fashion trends	3	20	1	4	30	1	9	60	1	40
world trade	2	10	1	4	20	2	8	50	4	17
listening and observing	2	50	1	4	50	1	6	50	1	21
unions	2	15	1	4	15	1	7	50	2	30
knowledge of data processing	2	20	1	4	25	2	20	40	5	11
business locations	2	16	1	4	32	1	8	48	1	43
forecasting	3	16	1	4	32	1	9	48	2	32

Table 14 (continued)

Subject	General Notion (Median)	Max.	Min.	Ability to Talk About It (Median)	Max.	Min.	Ability to Apply on Job (Median)	Max.	Min.	Number of Respondents
mental arithmetic	2	15	1	4	20	1	6	45	2	15
seasonal fluctuations	2	12	1	4	18	1	5	24	1	39
insurance	2	15	1	4	30	1	10	50	2	28
use of the telephone	2	6	1	3	10	1	4	20	1	34
cash register	2	5	1	3	10	1	5	20	1	33
local trade laws	2	15	1	3	25	1	5	25	1	30
making change	2	5	1	3	10	1	4	15	1	40
dictaphone	2	5	2	3	5	3	4	10	4	2
weighing or measuring devices	1	8	1	2	16	1	4	25	1	22
basic grammar	1	20	1	1	20	1	20	40	1	3
cultural development	1	12	12	1	48	48	1	99	99	1

Table 15 Time and Place to Teach Most Important Community College Distributive Education Subjects
(Total teacher-coordinators responding for per cent figures 108 - less omitted responses shown in Table 9)

Column:	1	2	3	4	5	6	7
Item	Importance Rank[1]	Prep'n Rank[1]	Doesn't Belong in D. E. Curriculum (%)	Best Taught in D. E. Classroom (%)	Teaching Hours To Apply (Median)[2]	Best Taught In Non-D.E. Classroom (%)	Teaching Hours To Apply (Median)[2]
Human Relations:							
Ability to work with others	2	6	0	92	10		
Ability to deal with superiors	5	4	0	91	10		
Fair treatment of minorities	12	3	5	81	12		
Business etiquette	11	8	1	93	8		
Getting others to work effectively	1	17	2	88	10		
Communications:							
Basic grammar	13	19	33	7		61	20
Letter Writing	34	53	17	26		62	25
Report writing	26	34	16	30		58	10
Listening and observing	4	15	16	51	6		
Person-to-person discussion	3	11	5	70	10		
Use of the telephone	8	9	12	73	4		
Group discussion	15	26	5	73	10		
Reading for comprehension	14	23	34	10		55	20
Marketing:							
Salesmanship	6	10	0	95	30		
Mathematics:							
Basic arithmetic	7	7	28	30		53	14
Mental arithmetic capability	16	21	28	36	6	35	6*
Business arithmetic	19	12	2	86	15		
				Totals	131		95

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[1] From Vol. I, Table 3, p. 25, columns 4 and 8, respectively.

[2] From Table 10, column I, page 43.

*Included in both columns, because opinion is easily divided on best location to teach.

agreement among teacher-coordinators that the items can best be taught in a community college distributive education classroom (see Column 4). However, for Basic Grammar, Letter Writing, Report Writing, Reading for Comprehension, Basic Arithmetic, and Mental Arithmetic Capability there is substantial agreement that they should be taught in the non-distributive education classroom (see Column 6). Because of the importance of the items, the list gives median judgment of classroom hours required (see Columns 5 and 7) to teach the average distributive education student to apply the item independently in a work situation. This arrangement permits the reader to relate at a glance importance and preparation to classroom hours needed for both distributive education and non-distributive education classroom subjects. The median total classroom time which teacher-coordinators believe is necessary to teach the average student to apply independently in a work situation those subjects best taught in the distributive education classroom is 131 hours; for subjects best taught in the non-distributive education classroom, total time is 95 hours.

Place for Most Important Personal Characteristics for Community Colleges

Table 16 shows those personal characteristics which employers (speaking of their supervisory employees) say are most important or moderately important and seriously lacking in preparation. There is nothing even approaching unanimous agreement on where these should be taught or developed, although for most, a larger percentage favors "On the Job," and for some, a majority (50 per cent or more) does so. For only one, Honesty, does a larger percentage favor the distributive education classroom.

Conclusions for Community Colleges

A majority of the coordinators agree that all but one (Higher Mathematics) of the subjects on our list belong in the distributive education curriculum. However, there also is agreement that 27 of the 67 subjects should not be tuaght in the distributive education classroom. For 19 of those 27, there is majority agreement, and for the rest there is substantial agreement in favor of some other classroom. This means that instructors from other disciplines should be involved in the distributive education curriculum in an important way.

The picture is different for personal characteristics. A majority agrees that 19 characteristics should be developed on the job. The question of whether or not a formal mechanism for accomplishing this can be developed needs to be examined. It may be that a syllabus can be prepared for employers in cooperative student employment programs, or it may be that the student should have the syllabus. Whatever the case may be, if an acceptable program cannot be developed on the job, the student can still be serviced, because a majority agrees in every case that the characteristics can be taught in the distributive education classroom.

Table 16 Place for Most Important Personal Characteristics for
Community College Distributive Education Programs
(Total teacher-coordinators responding for per cent figures 108 - less omitted responses shown in Table 10)

Item	Importance Rank[1]	Preparation Rank[1]	Best Taught in D. E. Classroom (%)	Best Taught On the Job (%)
Honesty	1	1	46	33
Dependability	4	3	29	51
Willingness to assume responsibility	3	11	15	43
Loyalty	4	3	18	66
Willingness to abide by regulations	10	4	30	62
Pride in doing work well	6	13	25	56
Initiative	5	20	34	42
Attention to detail	14	28	33	57
Enthusiasm	7	19	32	41
Ability to apply knowledge	11	14	16	77
Leadership*				
Ability to take constructive criticism	9	22	38	42
Tactfulness	13	25	33	46

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1. From Volume I, Table 6, p. 31, columns 3 and 6, respectively.

*Most respondents believed leadership items were best taught in the DECA program. See Table 12 , page 50.

The study also shows that, even though all but one of the subjects belong in the curriculum, attempting to raise all students to the highest level of understanding in every subject would be impossible, because the time requirement would be too great. However, by varying the time allotment with the importance of the subject, an adequate distributive education program can be developed within the time available to most community college programs.

SURVEY OF ADDITIONAL TRAINING NEEDED

The survey of additional training needed[1] asked teacher-coordinators:

1. What they consider to be distributive education subjects and what they think should be taught in a D. E. classroom.

2. Total class hours usually devoted to these subject areas in the respondent's D. E. program.

3. Additional education they needed for:

   a. 67 subject areas
   b. 52 personal characteristics
   c. 3 general D. E. teaching categories.

The results which follow represent returns from the 50 states, except Washington. Washington results were tabulated separately. But, whenever appropriate, a comparison of similar data for Washington versus the other states is made in footnotes. In addition, detailed tables for Washington state only are included in the Appendix.

This chapter presents the findings for areas 2 and 3 mentioned above--namely, the total class hours devoted to subject areas in the program and additional education needed. The first area--relating to specific subjects that coordinators consider to belong in distributive education--has already been discussed in the previous chapter. The findings for high schools and community colleges are presented separately, so that coordinators in the 2 academic levels can concentrate on data pertinent to their respective interests.

Response Rate

The research group mailed a questionnaire to all high school distributive educators (72) in the State of Washington, to a random sampling (approximately 1 out of every 5) of 430 D. E. high school coordinators in the other 49 states, to all mid-management D. E. coordinators (32) in the State of Washington, and to half the mid-management coordinators (187) throughout the remaining 49 states.[2]

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[1] A copy of this questionnaire is shown in the Appendix on pages 99 to 105.

[2] Pages 108 to 121 in the Appendix give background data about the respondents--universities attended, highest degree held, college majors and minors, age, experience, etc. This information, coupled with that found on pages 106 and 107, gives a fairly complete picture of the coordinators as educators.

The usable responses exceeded 70 per cent for all high schools and 60 per cent for all community colleges, as shown below:

Category	Number Sent	Number Responding	Per Cent Responding
High Schools			
49 States	430	314	73%
Washington	72	54	75%
Community Colleges			
49 States	187	114	61%
Washington	32	21	65%

High Schools

Hours in D. E. Program Devoted to Most Important Subjects

When filling out the questionnaire for this survey, the coordinator first had to decide if each of the 67 subject entries was a D. E. subject or should be taught in a D. E. classroom. If he decided in the affirmative, then he jotted down the total class hours usually devoted to this subject in his D. E. program. This section reports the median hours devoted to the subjects.

Only 4 (Salesmanship, Group Discussion, Advertising, and Sales Promotion) of the 67 subject areas are allotted 10 or more hours (median) in the D. E. program (see pages 122 and 123 in Appendix).[1] All four subjects are considered part of distributive education.[2] The rest receive 5 hours or less. Furthermore, coordinators devote zero hours to 5 areas (Reading Fast, Higher Mathematics, Typewriter, Dictaphone, and Calculator)--areas all falling in the least appropriate D. E. subject list.[3]

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[1] Number of hours devoted to subjects for Washington state compares fairly closely. Whereas the list for the 49 states shows coordinators spend 10 or more hours on only 4 subjects, the list for Washington includes those same 4, plus 4 others. Salesmanship for both groups tops the list for hours spent on a subject. See pages 124 and 125 for the Washington data.

[2] See list on page 24.

[3] Washington again compares closely -- these same 5, plus Penmanship and Accounting.

Perhaps the most useful purpose served by establishing the hours devoted to given subjects is relating them to the 13 subject areas that should be taught in the distributive education classroom and that businessmen consider highly important or moderately important but seriously lacking in preparation.[1]

As the table below shows, only 2 of these 13 subjects receive more than 5 hours in the entire distributive education program. Furthermore, coordinators devote less than 5 hours to more than half (8 of the 13) of the entries.

Subjects	Hours
Human relations	
Ability to work with others	5
Ability to deal with superiors	2
Fair treatment of minorities	2
Business etiquette	3
Ability to get others to work effectively	4
Communications	
Listening and observing	2
Person-to-person discussion	5
Use of the telephone	3
Group discussion	10
Marketing	
Salesmanship	25
Mathematics	
Making change	2
Business arithmetic	5
Mental arithmetic capability	2

As one might expect, the greatest allocation of time goes to Salesmanship. Other subjects that receive 5 or more hours in the program are Group Discussion, Ability to Work with Others, Person-to-Person Discussion, and Business Arithmetic.

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[1] See pg. 59 in Volume I.

Coordinators' Need for Additional Education in Subject Areas

The respondent estimated his degree of need for additional education or training for a particular knowledge or skill entry only if he indicated that it was a D. E. subject or should be taught in a D. E. classroom.[1]

This section summarizes the need estimates made by high school coordinators. Identical subject entries were ranked for importance by employers concerning their non-supervisors. The results of these 2 evaluations, by educators and employers, are presented in 2 different listings--one showing subjects in which coordinators say they especially need additional education, and one showing subjects in which they say they don't need as much additional education.

Important Subjects Needing Most Education. Given on the following page are the subject areas in which coordinators say they especially need additional education.[2] Included in the list are only those entries that fall both in the upper 50 per cent of the 67 skills and knowledge needing the greatest education[3] and the upper 50 per cent of those that businessmen considered most important on the job for their non-supervisors.[4]

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1. The questionnaire, shown on pages 99 to 105 in the Appendix, asked the respondent to encircle 1 of 9 numbers. Number 1 meant he believed he needed a very substantial amount of additional education or training. On the other hand, No. 9 meant very little or none. The numbers between 1 and 9 indicated varying degrees of need.

2. The Washington list contains 11 entries--9 of which are found in the national list. The other 2 are Group Discussion and Salesmanship. On the other hand, Basic Grammar in the national list doesn't appear in the Wasington list. See Tables A10 and A12 in the Appendix for details.

3. See Tables A11 and A14 on pages 129, 136, the Appendix. Table A11 shows the complete list of 67 subject entries categorized by area, ranking of need, and per cent of respondents who showed much need or little need for each entry. Table A14 gives the 67 entries listed from greatest to least need determined by mean score.

4. See pages 25 and 26 in Volume I for the ranking of entries by importance for employers concerning non-supervisors in marketing and distribution jobs.

Areas	Area Code[a]	Ranking of Additional Education Needed[b]	Importance Ranking[c]
Local trade laws	OTHER	6	30
Sales promotion	MKT	7	31
Fashion trends	MKT	8	27
Federal laws and regulations	OTHER	10	29
Labor-management relations	BOPM	21	*
Basic grammar	C	26	9
Inventory records	MKT	29	22
Stockkeeping and inventory control	MKT	31	18
Credit	MKT	31	24
Penmanship	C	33	16

a. Each of the 67 subject areas are categorized under 1 of the following 9 fields. The code for these groupings is in parentheses: Communications (C), Mathematics (Math), Human Relations (HR), Marketing (Mkt), Financial Records (FinR), Machines of Business (MB), Economics (Eco), Business Organization, Procedure, and Management (BOPM), and Other knowledge (Other).

b. Only the upper 50% of the 67 skills and knowledge are included.

c. Only the upper 50% of the 62 skills and knowledge are included.

* Entry isn't found in the list that employers considered.

With only 10 of the 67 entries in the above list, one can conclude that coordinators believe they are fairly well prepared in most of their subject areas. Also, the high average (mean) score shown on pages 136 and 137 in the Appendix strengthens this statement. Five of these 10 subjects especially needing additional education fall in the field of marketing, 2 in communications.

Important Subject Areas Needing Less Education. While the coordinators listed only 10 subjects in which they believed most additional education was needed, these same respondents mentioned 26 entries in which they said they did not need as much additional education.[1]

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[1] The Washington list contains 25 entries--24 that also appear in the national list, plus Basic Grammar. On the other hand, only the national list includes Salesmanship and Group Discussion. See Tables A13 and A10 in the Appendix for details.

As the following table shows, 20 of the 26 subjects fall in 4 areas--Communications; Human Relations; Mathematics; and Business Organization, Procedure, and Management.[1] Included in the list are only those entries that fall both in the lower 50 per cent of the 67 skills and knowledge needing the greatest education and the upper 50 per cent of those that businessmen considered most important on the job for non-supervisors.

Areas	Area Code	Ranking of Additional Education Needed[a]	Importance Ranking[b]
Salesmanship	MKT	35	4
Reading for comprehension	C	36	14
Internal organization relations	BOPM	37	15
Group discussion	C	38	20
Supervision	BOPM	39	*
Role of profit	ECO	41	*
Listening and observing	C	45	2
Report writing	C	47	28
Free enterprise system	ECO	48	23
Channels of distribution	MKT	49	*
Ability to get others to work effectively	HR	50	13
Business procedures	BOPM	52	*
Spelling	C	53	17
Type of business organization	BOPM	54	*
Person-to-person discussion	C	55	5
Mental arithmetic capability	MATH	57	12
Ability to work with others	HR	58	1
Business etiquette	HR	59	8

(continued on the next page)

a. Only the lower 50% of the 67 skills and knowledge are included.

b. Only the upper 50% of the 62 skills and knowledge are included.

* Entry isn't found in the list that employers considered.

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[1] See pages 25 and 26 in Volume I for the ranking of entries by importance for employers concerning non-supervisors in marketing and distribution jobs.

Areas	Area Code	Ranking of Additional Education Needed	Importance Ranking
Fair treatment of minorities	HR	60	7
Cash register	MACH	61	26
Business arithmetic	MATH	62	21
Ability to deal with superiors	HR	62	3
Use of the telephone	C	64	10
Basic arithmetic	MATH	65	6
Adding machine	MACH	66	25
Making change	MATH	67	11

Coordinators' Need for Additional Education or Training for Developing Personal Characteristics

Upon completing the 67 subject areas of the questionnaire, the respondent was asked to evaluate how well prepared he believed himself to be at that moment to teach or develop 52 listed personal characteristics. Results for high schools are discussed in this section.

In most instances, the subjects included in the 2 questionnaires of the present volume, Volume II, correspond in wording and number to those discussed in Volume I. For example, practically all the 62 subject entries in the first study are also found in the 67 subject areas of this volume. Where personal characteristics are concerned, however, the story is different. For example, only 27 of the 29 structured characteristics in Volume I are included in the 52 structured characteristics of Volume II. The original list of 29 personal characteristics was expanded to 52 for the present study because results from unstructured questions showed the importance to businessmen of the additional ones.[1] As to classification, the 52 characteristics were organized into the following 8 categories. The code for these groupings is in parentheses.

Motivation or caring about job (Motiv)
Mental ability (Mental)
Human relations (HR)
Work habits and work behavior (Work)
Leadership (Lead)
Attitude toward job (Atti)
Temperament (Temp)
Other individual personality and behavioral characteristics (Other)

The additional characteristics found in Volume II but not in Volume I justify the many asterisks used when comparing rank of additional education needed with importance on the job.

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[1] See pp. 99 to 105, Volume I, for details.

The discussion is divided into 2 sections--personal characteristics in which coordinators especially need additional education or training, and those not needing as much additional education or training. To show this degree of need, a comparison is made between the coordinators' need estimates and what employers consider important for their supervisors.[1]

One final remark. The extremely high average (mean) for all 52 personal characteristics indicates that the coordinators do not think they have urgent need for additional training. As explained on the instruction sheet of the questionnaire (page 99), 9 means little or no additional training; 1, a very substantial amount. The mean ranges from 6.73 to 8.49 for the characteristics. In contrast, the mean scores shown on pages 136 and 137 for the subject areas range from 4.16 to 7.78.

Important Characteristics Needing Most Training. If only the upper 50 per cent of the ranked 52 personal characteristics is compared to the upper 50 per cent of the ranked 29 personal characteristics, 8 of the 18 resulting entries fall within the categories of Mental Ability and Temperament.[2] In fact, 5 of the possible 8 Mental Ability characteristics and all 3 of the 3 Temperament characteristics fall into the upper 50 per cent, ranked by importance. This information is shown in the table on the following page.

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1. See Tables A15 and A16 on pages 138 and 140, the Appendix. Table A16 shows the complete list of 52 personal characteristic entries categorized by area, ranking of need, and per cent of respondents who showed much need and little need for each entry. Table A15 lists the 52 entries from greatest to least need determined by mean score.

2. The Washington list contains 20 characteristics--17 of which are also found in the national list--plus Willingness to Take Orders, Congeniality, and Willingness to Take Constructive Criticism. In addition, only the national list includes Tolerance. See Tables A 17, and A18 on pages 143 to 145, the Appendix, for details.

Characteristics	Area Code	Ranking by Additional Education Needed[a]	Importance Ranking[b]
Memory	MENTAL	1	*
Ability to analyze	MENTAL	4	*
Willingness to do routine work	MOTIV	5	9
Thinking quickly	MENTAL	6	*
Attention to details	WORK	8	6
Patience	TEMP	8	*
Ability to apply knowledge	MENTAL	10	14
Alertness	MENTAL	11	*
Aggressiveness	MOTIV	12	*
Get people to work well	LEAD	14	*
Control of temper	TEMP	14	*
Ability to organize	LEAD	16	*
Accuracy	WORK	18	*
Toleranc	TEMP	19	*
Ability to take constructive criticism	HR	21	8
Tactfulness	HR	22	13
Perseverance	MOTIV	23	*
Outgoing - sociable	HR	23	*

a. Only the upper 50% of the 52 personal characteristics are included.
b. Only the upper 50% of the 29 personal characteristics are included.
* Entry isn't found in the list that employers considered.

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All 18 of these characteristics fall within 6 of the 8 major characteristic categories. In addition to Mental Ability and Temperament, the other 4 categories are Motivation or Caring About Job, Human Relations, Work Habits and Work Behavior, and Leadership. Excluded are characteristics that fall within the classification of Attitude Toward Job and Other Personality and Behavioral Characteristics.

Important Characteristics Needing Less Training. The characteristics in which the coordinators need less additional training are determined by 2 factors--those characteristics still considered most important by businessmen and at the same time those that require the least additional training by coordinators. In other words, the characteristics discussed here are those that fall in the upper 50 percentile of the list of businessmen consider most important[1] and at the same time fall in the lower 50 percentile of the list coordinators believe they need least training in.[2]

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[1] See importance column headed "Employers about Non-supervisors" on pages 31 and 32 in Volume I.

[2] See Table A15 on pages 138 and 139, the Appendix.

The following table shows the resulting characteristics.[1] The 22 characteristics listed fall in 6 of the 8 possible categories, namely Motivation, Human Relations, Work Habits, Leadership, Attitude Toward Job, and Other Characteristics. In the previous section, the characteristic entries allotting high importance ranking to additional training emphasized Mental Ability and Temperament; in this section the characteristic entries relating to these 2 categories are excluded.

Characteristics	Area Code	Ranking by Additional Education Needed[a]	Importance Ranking[b]
Willingness to take constructive criticism	OTHER	27	*
Initiative	OTHER	28	7
Ambition	MOTIV	29	*
Application to the task	ATTI	30	*
Congeniality	HR	31	*
Enthusiasm	MOTIV	32	12
Determination	MOTIV	33	*
Willingness to take orders	WORK	34	*
Smile	OTHER	35	15
Ability to talk easily with people	HR	36	*
Willingness to work on own	WORK	36	*
Willingness to abide by regulations	WORK	38	4
Showing interest in job	ATTI	41	*
Pride in doing work well	MOTIV	42	5
Understanding what work means	ATTI	44	*
Desire to help others	LEAD	45	*
Friendliness	HR	47	10
Sincerity	OTHER	47	11
Ability to get along with people	HR	49	*
Loyalty	WORK	50	3
Dependability	OTHER	51	2
Honesty	OTHER	52	1

a. Only the lower 50% of the 52 personal characteristics are included.
b. Only the upper 50% of the 29 personal characteristics are included.
* Entry isn't found in the list that employers considered.

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[1] The Washington list contains 20 characteristics--19 also found in the national list--plus Tolerance. Included only in the national list are Willingness to Take Constructive Criticism, Congeniality, and Willingness to Take Orders. See Tables A19, A15, and A18 on pages 146, 138, and 144 in the Appendix for details.

The 6 classifications shown on page 73 seem fairly well divided, except for the lone characteristic relating to Leadership. Otherwise, the other groups range from 3 to 6 entries, with "Other" heading the list.

Degree of Preparation in General D. E. Teaching Matters

The only remaining high school results from the questionnaire that yield data for this chapter concern the relative degree of need that coordinators experience for additional education in general distributive education teaching matters. These include 4 types: coordinators' skills, guidance, teaching with projects, and designing individual projects.

The respondents indicated their need by encircling 1 number among number choices ranging from 1 through 9. As mentioned previously, 9 means little or no additional education or training needed; 1 means need for a very substantial amount of education or training.

As Table A20 on page 147 indicates, average (mean) for high schools exceeds the mid-point of 5. In other words, all coordinators as a group believe they are fairly well prepared to teach in all 4 areas.[1] The same table also shows that high school coordinators believe themselves best prepared in coordinating skills and guidance. The other 2 categories, teaching with projects and designing individual projects, essentially tie for third place.

Another way to check the coordinators' preparation here is to note the percentages shown in the columns headed "Very Well Equipped" and "Very Poorly Equipped." The teachers believe themselves best prepared in guidance (72%) and least prepared in teaching with projects and designing individual projects.

Conclusions

1. Coordinators devote an unusually greater number of hours to Salesmanship than to 12 other skills and knowledge areas that businessmen consider important and in which they say their non-supervisory personnel are inadequately prepared. Of these 13 subject areas, coordinators spend on the average 25 hours on Salesmanship and 10 hours on group discussion in their distributive education programs. Each of the remaining 11 areas--all considered important--receive 5 hours or less in the entire program.

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[1] The Washington figures rank closely to the national figures for degree of preparation for high schools. Yet, a larger percentage of Washington high school coordinators consider themselves much better equipped (70.8) in coordinating skills. See Table A21 on page 148 in the Appendix for details.

2. Coordinators believe they are fairly well prepared in most of the 67 tested subject areas for the following reasons:

    a. Not one of the areas considered distributive education fall below an average (mean) of 5.0 on a 1-through-9-point scale. ("1" means respondent believed he needed a very substantial amount of additional education or training; "9," very little or none.)

    b. Coordinators believe they especially need additional education in only 10 of the 67 subjects. And none of them are included in the list of most important subjects in Volume I.

    c. Coordinators indicate 26 subjects that businessmen consider important for non-supervisors in which they need least additional training. Of these 26 entries, 20 fall in 4 general areas--Communications; Human Relations; Mathematics; and Business Organization, Procedure, and Management.

3. Coordinators believe they need even less additional education or training in personal characteristics than in skills and knowledge subjects. The characteristics that need the most emphasis include a large proportion of those that fall under the classification of Mental Ability and Temperament; nothing relating to Attitude Toward Job or Other Individual Personality and Behavior appear in this list. On the other hand, the characteristics that require less additional training do not include any entry relating to Mental Ability and Temperament.

4. Coordinators, as a group, believe they are fairly well prepared in coordinating skills, guidance, teaching with projects, and designing individual projects--especially in the first 2.

Community Colleges

The format for this section on the results from coordinators in community colleges is identical to that for the preceding section on high schools.

Hours in D. E. Program Devoted to Most Important Subjects

When filling out the questionnaire for this survey, the coordinator first had to decide if each of the 67 subject entries was a D. E. subject or should be taught in a D. E. classroom. If he decided in the affirmative, then he jotted down the total class hours usually devoted to this subject in his D. E. program. This section reports the median hours devoted to the subjects.

Mid-management coordinators devote 8 or more hours to 12 subject areas,[1] and Accounting (not Salesmanship) leads the list with 45 hours, on the average. (See list on pages 149 and 150 in the Appendix.)[2] All except 3 (Accounting, Business Law, and Basic Arithmetic) of these 12 subjects should be taught in the community college distributive education classroom.[3] The other subjects get 6 hours or less. Furthermore, coordinators devote zero median hours to 2 areas (Higher Mathematics and Dictaphone)--but then both fall in the least appropriate distributive education subject list.[4]

Perhaps the most useful purpose served by establishing the hours devoted to given subjects is relating them to the 14 subject areas that should be taught in the distributive education classroom and that businessmen consider highly important or moderately important but seriously lacking in preparation.[5]

Overall, mid-management coordinators devote more time to their 14 areas than do the high school counterparts with their 13. The table on the following page shows that 5 of the 14 subjects receive more than 5 hours in the entire distributive education program. Only 4 areas receive less than 5 hours.

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[1] These 12 subjects are Accounting, Salesmanship, Advertising, Business Law, Business Arithmetic, Group Discussion, Prepared Talks, Basic Arithmetic, Sales Promotion, Supervision, Buying, and Channels of Distribution.

[2] In contrast, coordinators in Washington devote 8 or more hours to 25 subjects with Salesmanship topping the list, with 50 hours. See pages 151 and 152 for the Washington data.

[3] See Table 12, page 50.

[4] Washington devotes zero (mean) hours to 4 areas--Higher Mathematics, Statistics, Cash Register, and Weighing and Measuring Devices.

[5] See pages 71 and 72 in Volume I.

Subjects	Hours
Human relations	
Ability to work with others	6
Ability to deal with superiors	5
Fair treatment of minorities	5
Business etiquette	4
Ability to get others to work effectively	6
Communications	
Letter writing	3
Report writing	5
Listening and observing	5
Person-to-person discussion	5
Use of the telephone	2
Group discussion	10
Marketing	
Salesmanship	36
Mathematics	
Mental arithmetic	4
Business arithmetic	15

The foregoing table shows that the most time is allotted to Salesmanship--36 hours. This figure exceeds the average time spent on the same subject in high schools.

Coordinators' Need for Additional Education in Subject Areas

The respondent estimated his degree of need for additional education for a particular knowledge or skill entry only if he indicated that it was a distributive education subject or should be taught in a distributive education classroom.[1]

This section summarizes the need estimates made by community college coordinators. Identical subject entries were ranked for importance by employers concerning their supervisors. The results of these 2 evaluations, by educators and employers, are presented in 2 different listings--one showing subjects in which coordinators say they especially need additional education, and one showing subjects in which they say they don't need as much additional education. The degrees of additional education that coordinators say they need in the 67 subjects are surprisingly similar to those of their high school counterparts.

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[1] The questionnaire, shown on pages 99 to 105 in the Appendix, asked the respondent to encircle 1 of 9 numbers. Number 1 meant he believed he needed a very substantial amount of additional education or training. On the other hand, No. 9 meant very little or none was needed. The numbers between 1 and 9 indicated varying degrees of need.

Important Subjects Needing Most Education. Given below are the 12 subject areas in which coordinators in community colleges say they especially need additional education.[1] Included in the list are only those entries that fall both in the upper 50 per cent of the 67 skills and knowledge as needing the greatest amount of education and the upper 50 per cent of skills businessmen considered most important on the job for their supervisors. Seven of these 12 areas appear in the list in which high school coordinators also say they especially need additional education.[2,3]

Areas	Area Code[a]	Ranking by Additional Education Needed[b]	Importance Ranking[c]
Local trade laws	OTHER	3	25
Fashion trends	MKT	5	28
Federal laws and regulations	OTHER	8	29
Forecasting	ECO	13	31
Reading for comprehension	C	13	14
Sales promotion	MKT	19	27
Buying	MKT	20	30
Listening and observing	C	21	4
Credit	MKT	23	23
Basic grammar	C	25	13
Report writing	C	30	26
Inventory records	MKT	33	17

a. Each of the 67 subject areas are categorized under 1 of the following 9 fields. The code for these groupings is in parenthesis: Communications (C), Mathematics (Math), Human Relations (HR), Marketing (Mkt), Financial Records (FinR), Machines of Business (MB), Economics (Eco), Business Organization, Procedure, and Management (BOPM), and Other Knowledge (Other).

b. Only the lower 50% of the 67 skills and knowledge are included.

c. Only the upper 50% of the 62 skills and knowledge are included.

---

[1] The Washington list includes 13 entries--10 found in the national list, plus Labor-management Relations, Spelling, and Ability to Work with Others. Those found only in the national list are Buying and Inventory Records. See Tables A25 and A27 in the Appendix for details.

[2] See Tables A24 and A28 on pages 153 to 157, and 163 to 164 in the Appendix. Table A24 shows the complete list of 67 subject entries categorized by area, ranking of need, and per cent of respondents who showed much need or little need for each entry. Table A28 lists the 67 entries ranked from greatest to least need, as determined by the mean score.

[3] See pages 25 and 26, Volume I, for the ranking of entries for importance by employers concerning supervisors in marketing and distribution jobs.

The table on the preceding page stresses the need in 2 areas--Marketing and Communications. The same emphasis on these 2 areas appears in the high school list.

Important Subject Areas Needing Less Education. While the coordinators listed 12 subjects in which they believed they needed the most additional education, these same respondents mentioned 24 entries in which they said they did not need as much additional education.[1]

As the table on the following page shows, 15 of the 24 subjects fall into 3 areas--Human Relations; Communications; and Business Organization, Procedure, and Management. To a lesser degree the others relate to 3 other areas--Marketing, Mathematics, and Economics.[2] Included in the list are only those entries that fall both in the lower 50 per cent of the 67 skills and knowledge needing the greatest education and the upper 50 per cent of those that businessmen considered most important on the job for supervisors.

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1. The Washington list includes 23 entries--20 found in the national list, plus Buying, Inventory Records, and Seasonal Fluctuations. Those found only in the national list are Labor-management Relations, Seasonal Fluctuations, Ability to Work with Others, and Spelling. See Tables A26 and A27 in the Appendix for details.

2. See pages 25 and 26 in Volume I for the ranking of entries for importance by employers concerning supervisors in marketing and distribution jobs.

Areas	Area Code	Ranking by Additional Education Needed[a]	Importance Ranking[b]
Stockkeeping and inventory control	MKT	36	18
Labor-management relations	BOPM	38	*
Ability to get others to work effectively	HR	38	1
Penmanship	C	40	24
Seasonal fluctuations	ECO	44	21
Ability to deal with superiors	HR	45	5
Role of profit	ECO	46	*
Ability to work with others	HR	47	2
Supervision	BOPM	49	*
Person-to-person discussion	C	50	3
Free enterprise system	ECO	51	20
Business arithmetic	MATH	52	19
Internal organization relations	BOPM	53	9
Fair treatment of minorities	HR	54	12
Group discussion	C	55	15
Channels of distribution	MKT	55	*
Salesmanship	MKT	57	6
Business etiquette	HR	58	11
Business procedures	BOPM	59	*
Type of business organization	BOPM	60	*
Spelling	C	61	22
Use of the telephone	C	63	8
Mental arithmetic	MATH	64	16
Basic arithmetic	MATH	66	7

a. Only the lower 50% of the 67 skills and knowledge are included.

b. Only the upper 50% of the 62 skills and knowledge are included.

* Entry isn't found in the list that employers considered.

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Coordinators' Need for Additional Education or Training for Developing Personal Characteristics

Upon completing the 67 subject areas of the questionnaire, the respondent was asked to evaluate how well prepared he believed himself to be at that moment to teach or develop 52 listed personal characteristics. Results for the community colleges are discussed in this section.

In most instances, the subjects included in the 2 questionnaires of the present volume, Volume II, correspond in wording and number to those discussed in Volume I. For example, practically all the 62 subject entries in the first study are also found in the 67 subject areas of this volume. Where personal characteristics are concerned, however, the story is different. For example, only 27 of the 29 structured characteristics in Volume I are included in the 52 structured characteristics of Volume II. The original list of 29 personal characteristics was expanded to 52 for the present study because results from unstructured questions showed the importance to businessmen of the additional ones.[1] As to classification, the 52 characteristics were organized into the following 8 categories. The code for these groupings is in parentheses.

Motivation or caring about job (Motiv)
Mental ability (Mental)
Human relations (HR)
Work habits and work behavior (Work)
Leadership (Lead)
Attitude toward job (Atti)
Temperament (Temp)
Other individual personality and behavioral characteristics (Other)

The additional characteristics found in Volume II but not in Volume I justify the many asterisks used when comparing rank of additional education needed with importance on the job.

For community colleges[2] the discussion is divided into 2 sections--personal characteristics in which coordinators especially need additional education or training, and those not needing as much additional education or training. To show this degree of need, a comparison is made between the coordinators' need estimates and what employers consider important for their supervisors.

One final remark. The extremely high average for all 52 personal characteristics indicates that the coordinators do not think they have urgent need for additional training. As explained on the instruction sheet of the questionnaire (page 99), 9 means little or no additional training; 1 a very substantial amount. The mean ranges from 6.91 to 8.16 for the characteristics. In contrast, the mean score shown on pages 163 and 164 for the subject areas ranges from 4.01 to 7.55.

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[1] See pages 99 to 105 in Volume I for details.

[2] See Tables A29 and A30 on pages 165 to 169, the Appendix. Table A29 shows the complete list of 52 characteristic entries categorized by area, ranking of need, and per cent of respondents who showed much need and little need for each entry. Table A30 lists the 52 entries from greatest to least need determined by mean score.

Important Characteristics Needing Most Training. Listed below is the table that compares the upper 50 per cent of the ranked 52 personal characteristics to the upper 50 per cent of the ranked 29 characteristics.[1] Included are the 20 perconal characteristics that can be classified as those in which coordinators especially need additional training or education.[2]

Characteristics	Area Code	Ranking of Additional Education Needed[a]	Importance Ranking[b]
Memory	MENTAL	1	*
Attention to details	WORK	3	14
Patience	TEMP	4	*
Ability to take constructive criticism	HR	6	9
Ability to analyze	MENTAL	7	*
Willingness to abide by regulations	WORK	7	10
Thinking quickly	MENTAL	10	*
Control of temper	TEMP	12	*
Accuracy	WORK	13	*
Tolerance	TEMP	13	*
Alertness	MENTAL	15	*
Tactfulness	HR	16	13
Willingness to take orders	WORK	18	*
Willingness to take constructive criticism	OTHER	19	*
Ability to apply knowledge	MENTAL	20	11
Aggressiveness	MOTIV	21	*
Outgoing - sociable	HR	21	*
Ability to organize	LEAD	23	*
Congeniality	HR	24	*
Get people to work well	LEAD	24	*

a. Only the upper 50% of the 52 personal characteristics are included.
b. Only the upper 50% of the 29 personal characteristics are included.
* Entry isn't found in the list that employers considered.

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A study of these 20 characteristics reveals that 5 of the 8 Mental Ability characteristics and all 3 of the 3 Temperament characteristics are included--same number shown for the high school list. Also included are 2 of the 4 Leadership entries, 4 of the 7 Human Relations group, and 4 of the 6 Work Habit classification. On the other hand, only 1 characteristic relating to Motivation, 1 to "Other" and none from Attitude Toward Job appear in the above list.[3]

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1. See Importance column ("Employers About Supervisors), pp. 31 and 32, Volume I.
2. The Washington list also includes 20 characteristics--18 found in the national list, plus Application to the Task and Enthusiasm (see Tables A31 and A32 on pages 170 to 172.
3. For classification of characteristics see pages 103 and 104, in the Appendix, for details.

Important Characteristics Needing Less Training. The characteristics in which the coordinators need less additional training are determined by 2 factors--those characteristics still considered most important by businessmen and at the same time those that require the least additional training by coordinators. In other words, the characteristics discussed here are those that fall in the upper 50 percentile of the list businessmen consider most important[1] and at the same time fall in the lower 50 percentile of the list coordinators believe they need the least training in.[2]

The following table shows this comparison.[3]

Characteristic	Area Code	Ranking of Additional Education Needed[a]	Importance Ranking[b]
Perseverance	MOTIV	28	*
Application to the task	ATTI	29	*
Ability to talk easily with people	HR	30	*
Ambition	MOTIV	31	*
Determination	MOTIV	34	*
Desire to help others	LEAD	34	*
Willingness to work on own	WORK	36	*
Initiative	OTHER	37	5
Positive Attitude	OTHER	39	15
Loyalty	WORK	41	4
Showing an interest in job	ATTI	42	*
Enthusiasm	MOTIV	43	7
Ability to get along with people	HR	43	*
Understanding meaning work	ATTI	45	*
Pride in doing work well	MOTIV	46	6
Willingness assume respons.	LEAD	46	3
Dependability	OTHER	50	2
Sincerity	OTHER	50	8
Honesty	OTHER	52	1

a. Only the lower 50% of the 52 personal characteristics are included.
b. Only the upper 50% of the 29 personal characteristics are included.
* Entry isn't found in the list that employers considered.

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[1] See importance column headed "Employers about Supervisors" on pages 31 and 32 in Volume I.

[2] See Table A30 on pages 168 and 169, the Appendix.

[3] The Washington list also contains 19 characteristics--17 found in the national list, plus Ability to Apply Knowledge and Willingness to Take Constructive Criticism. Only the national list includes Application to the Task and Enthusiasm. See Tables A33, A32, and A30 on pages 173, 171, and 168 for details.

The 19 characteristics listed fall in 6 of the 8 possible categories --namely, Motivation, Human Relations, Work Habits, Leadership, Attitude Toward Job, and Other Characteristics--with emphasis in the areas of Motivation and those classified as "Other"; these 2 categories account for 10 of the 19 entries. Less emphasis is shown in the other groupings. Also, all entries relating to Mental Ability and Temperament are excluded.

Degree of Preparation in General D. E. Teaching Matters

The only remaining community college results from the questionnaire that yield data for this chapter concern the relative degree of need that coordinators experience for additional education in general distributive education teaching matters. These include 4 types--coordinators' skills, guidance, teaching with projects, and designing individual projects.

The respondents indicated their need by encircling 1 number among number choices ranging from 1 through 9. As mentioned previously, 9 means little or no additional education or training needed; 1 means need for a very substantial amount of education or training.

As Table A34 on pg. 174 indicates, average (mean) for community colleges is 6.0 or higher. In other words, all coordinators as a group believe they are fairly well prepared in all 4 teaching areas.[1] The same table also shows that community college coordinators believe themselves best prepared in coordinating skills and guidance. The other 2 categories--designing individual projects and teaching with projects--fall in third and fourth place, respectively, but still approximate each other (6.3 vs. 6.0) for mean score.

Also, the last 2 pairs of columns on page 174 show that a substantial majority of the coordinators believe themselves very well equipped in coordinating skills and guidance. On the other hand, at least 13 per cent feel very poorly equipped in the other 2 teaching areas.

Conclusions

1. Coordinators devote an unusually greater number of hours to salesmanship than to 11 other skills and knowledge areas that businessmen consider important and say their supervisory personnel are inadequately prepared in. Of these 12 subject areas, coordinators spend

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[1] The Washington figures rank the same as the national figures but have a lower (mean) average for degree of preparation. Also, Washington coordinators don't think they are as well equipped in teaching with projects as their national counterparts. Furthermore, the Washington respondents show a higher percentage for very poorly equipped in coordinating skills and designing individual projects. See Table A35 on page 175 in the Appendix for details.

on the average 36 hours on Salesmanship, 15 hours on Business Arithmetic, and 10 hours on group discussion in their distributive education programs. Each of the remaining 11 areas--all considered important--receive 6 hours or less in the entire program.

2. Coordinators believe they are fairly well prepared in most of the 67 tested subject areas for the following reasons:

   a. Not one of the areas considered distributive education fall below a mean average of 5.0 on a 1-through-9-point scale. ("1" means respondent believed he needed a very substantial amount of additional education or training; "9" very little or none.)

   b. Coordinators believe they especially need additional education in only 12 of the 67 subjects. And only 2 of these 12 (Listening and Observing and Report Writing) are included in the list of most important subjects in Volume I.

   c. While they list only 12 areas they especially need additional education, these same teachers indicate 24 subjects that businessmen consider important for supervisors but that the coordinators believe they need the least additional training. Of these 24 entries, 15 of them fall in 3 areas--Human Relations; Communications; and Business Organization, Procedure, and Management.

3. Coordinators believe they need even less additional education or training in personal characteristics than in skills and knowledge subjects. The characteristics that need the most emphasis include a large proportion of those that fall under the classification of Mental Ability, Temperament, Human Relations, and Work Habits; nothing relating to Attitude Toward Job appears in this list. On the other hand, the characteristics that require less additional training do not include any entry relating to Mental Ability and Temperament mentioned above.

4. Coordinators, as a group, believe they are fairly well prepared in coordinating skills, guidance, teaching with projects, and designing individual projects--especially in the first 2.

CONCLUSIONS AND RECOMMENDATIONS

Two principal conclusions can be drawn from this study:

1. In the time available to most distributive education programs, both high school and community college distributive education graduates can be adequately prepared in those subjects which are most important to them on the job.

2. Neither high school nor community college teacher-coordinators feel any great need for additional training in the subjects or personal characteristics which they believe belong in the distributive education classroom.

The majority of teacher-coordinators in both high schools and community colleges are spreading themselves too thin by including far too many subjects in their distributive education programs.[1] In addition, some teachers are putting too much emphasis on certain subjects (such as Salesmanship) while they are not spending enough time on others (such as Human Relations and some phases of Communication).

Designers of distributive education programs should concentrate especially on distributive education areas that businessmen consider important and on those personal characteristics they can best develop in the classroom. And for those subjects that belong in the distributive education curriculum but not in the distributive education classroom (these are listed on pages 21 and 53), teachers from other disciplines should teach them.

Teacher-coordinators consider themselves fairly well prepared in most distributive education subject areas they teach--especially those skills and knowledge that businessmen say are important in marketing and distribution jobs. Also, they believe themselves adequately prepared in general distributive education teaching matters (such as coordinating skills and designing individual projects).

Based upon these conclusions, it is recommended:

1. Curriculum designers should make every effort to involve teachers from other disciplines (such as Mathematics and English) in teaching certain subjects that are important to distributive education graduates.

2. The distributive education curriculum in each state should be reviewed with a view toward putting the appropriate emphasis and time (as shown in this study) on those distributive education subjects which are best taught in the distributive education classroom.

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[1] See Table 3 (pp. 22 - 23) and Table 11 (pp. 48 - 49).

3. Eventually some formal arrangement needs to be made with employers involved in cooperative programs to supervise the development of those personal characteristics best handled on the job. But, in the meantime, these characteristics should continue to be developed in the classroom whenever possible.

APPENDIX CONTENTS

Page

Questionnaires

Exhibit 1 Questionnaire to Distributive Education Teacher-Coordinators (concerning place and time to teach material) 91

Exhibit 2 Questionnaire to Distributive Education Teacher-Coordinators (concerning preparedness of coordinators) 99

Tables for both High Schools and Community Colleges

Table A1 Comparison of Background of Coordinators in High Schools and Community Colleges (for all states except Washington) 106

Table A2 Comparison of Background of Coordinators in High Schools and Community Colleges (for all states except Washington) 108

Table A3 Comparison of Background of Coordinators in High Schools and Community Colleges (for Washington State only) 110

Table A4 Coordinators' College Majors (for all states except Washington) 112

Table A5 Coordinators' College Majors (for Washington State only) . . 115

Table A6 Coordinators' College Minors (for all states except Washington) 117

Table A7 Coordinators' College Minors (for Washington State only) . . 120

Tables for High Schools

Table A8 Total Class Hours Devoted to Subject in the High School Distributive Education Program (for all states except Washington) 122

Table A9 Total Class Hours Devoted to Subject in the High School Distributive Education Program (for Washington State only) . 124

Table A10 High School Coordinators' Perceived Need for Additional Education by Subject (for Washington State only) 126

Table A11 High School Coordinators' Perceived Need for Additional Education by Subject (for all states except Washington) . . . 129

Table A12 Importance (According to Employers of Non-supervisors) of Areas in which Coordinators Say They Especially Need Additional Education (High Schools in Washington State only) 134

Table A13 Importance (According to Employers of Non-supervisors) of Areas in which Coordinators Say They Do Not Need as much Additional Education (High Schools in Washington State only) 135

Appendix Contents (continued)

Page

Table A14 High School Coordinators' Perceived Need for Additional Education in Each Subject (for all states except Washington). 136

Table A15 High School Coordinators' Perceived Ability to Teach or Develop Personal Characteristics (for all states except Washington) 138

Table A16 High School Coordinators' Perceived Ability to Teach or Develop Personal Characteristics (for all states except Washington) 140

Table A17 Importance (According to Employers of Non-supervisors) of Personal Characteristics in which Coordinators Say They Especially Need Additional Education (High Schools in Washington State only) 143

Table A18 High School Coordinators' Perceived Ability to Teach or Develop Personal Characteristics (for Washington State only) 144

Table A19 Importance (According to Employers of Non-supervisors) of Personal Characteristics in which Coordinators Say They Do Not Need as Much Additional Education (High Schools for Washington State only) 146

Table A20 High School Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters (for all states except Washington). 147

Table A21 High School Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters (for Washington State only) 148

Tables for Community Colleges

Table A22 Total Class Hours Devoted to Subject in the Community College Distributive Education Program (for all states except Washington). 149

Table A23 Total Class Hours Devoted to Subject in the Community College Distributive Education Program (for Washington State only) 151

Table A24 Community College Coordinators' Perceived Need for Additional Education by Subject (for all states except Washington) 153

Table A25 Importance (According to Employers of Supervisors) of Areas in which Coordinators Say They Especially Need Additional Education (Community Colleges in Washington State only) . . . 158

Appendix Contents (continued)

Page

Table A26 Importance (According to Employers of Supervisors) of Areas in which Coordinators Say They Do Not Need as Much Additional Education (community colleges in Washington State only) 159

Table A27 Community College Coordinators' Perceived Need for Additional Education by Subject (Washington State only). 160

Table A28 Community College Coordinators' Perceived Need for Additional Education by Subject (for all states except Washington) . . . 163

Table A29 Community College Coordinators' Perceived Ability to Teach or Develop Personal Characteristics (for all states except Washington) 165

Table A30 Community College Coordinators' Perceived Ability to Teach or Develop Personal Characteristics (for all states except Washington) 168

Table A31 Importance (According to Employers of Supervisors) of Personal Characteristics in which Coordinators Say They Especially Need More Education (community colleges in Washington State only) 170

Table A32 Community College Coordinators' Perceived Ability to Teach or Develop Personal Characteristics (for Washington State only) 171

Table A33 Importance (According to Employers of Supervisors) of Personal Characteristics in which Coordinators Say They Do Not Need Much More Education (community colleges in Washington State only) 173

Table A34 Community College Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters (for all states except Washington) 174

Table A35 Community College Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters (for Washington State only) 175

EXHIBIT 1

QUESTIONNAIRE TO DISTRIBUTIVE EDUCATION TEACHER COORDINATORS

Instructions:

The purpose of this questionnaire is to obtain your professional judgment about places where specific subjects and personal characteristics should be taught or developed and the number of classroom hours it takes to teach them.

The following five steps explain how to fill out the pages relating to specific subjects:

1. If you think a subject listed does not belong in a D. E. curriculum at all, then simply make an "X" in Column A and go to the next subject.

2. Some subjects may be D.E. subjects, but should be taught outside the D. E. classroom; for example, you may feel that grammar is a D. E. subject, but should be taught in a language-development class. Therefore, for each subject, if you do not select Column A, make an "X" in one or more of Columns B, C, D, and E to indicate those places where you think the subject should be taught.

3. If you have not selected Column B for a subject (in other words, if you think it should not be taught in the D. E. classroom), go on to the next subject.

4. But if you have selected Column B, indicating that at least one place where the subject should be taught is the D. E. classroom, then proceed to Column F. If you have never taught the subject, just make an "X" in Column F and go to the next subject.

5. But if you have taught or are presently teaching the subject, then you are ready for the principal business of this questionnaire which is to record your professional judgment of the approximate total number of classroom hours you should spend getting your average students to each of the following levels of achievement (listed in ascending order of difficulty):

    G. General notion of the subject. (Recognize it.)
    H. Sufficient knowledge to be able to talk intelligently about the subject and understand instructions in it. (Recall something about it.)
    I. Sufficient knowledge to be able to understand the subject thoroughly and apply or use it without assistance in the usual beginning work situation. (Recognize, recall and apply it.)

CAUTION: Our definition requires that it takes at least as many hours to get the students to Level "H" as it does to get them to Level "G" and that it takes at least as many hours to get them to "I" as to "H". Therefore, each number you enter must be equal to or greater than the number to its left. If for some reason it doesn't make sense to you to record hours for a certain level, you may leave that level blank.

	A	B	C	D	E	F	G	H	I
For example: Item.......................		X	X				5	10	25

Please base your judgments on all average students as a group; don't think of a single "typical" or "representative" student. Because classes vary from one year to the next, you may want to think of the average group over the last 2 or 3 years. Curriculum planning, of course, must also consider both better-than-average students and below-average students; but adaptations for these students can be made from the average group.

Don't worry about whether the hours you list agree or disagree with the actual number of hours in your present program. This isn't any kind of a test and there aren't any right answers. We just want your professional judgment concerning how many hours it would take to get the average student to each level for the subjects listed.

Remember that whatever you say will be absolutely confidential. There will be no way that individuals can be identified with particular answers. In fact, after we get your questionnaire back and log it in, we ourselves will no longer be able to tell which individual is associated with particular answers.

You probably teach some of the subjects in combination rather than separately; if so, do the best you can to consider each entry individually.

Remember, Columns G, H, and I may be equal or they may increase from left to right but they may not decrease.

SUBJECTS		D. E. Subject and should be taught:					D.E. Classroom hours student needs to acquire:		
	A	B	C	D	E	F	G	H	I
	Doesn't belong in D.E. curriculum	in D.E. class	on the job	in non-D.E. class	other	I have never taught it	general notion	ability to talk about it	ability to apply on job
	(X)	(X)	(X)	(X)	(X)	(X)	(hrs)	(hrs)	(hrs)
Communications									
a. Writing									
1. Letter writing.....									
2. Report writing.....									
3. Spelling...........									
4. Penmanship.........									
5. Punctuation........									
b. Oral presentation									
1. Group discussion...									
2. Prepared talks.....									
3. Person-to-person discussion.........									
c. Basic grammar.........									
d. Listening and observing.............									
e. Reading									
1. Reading for comprehension......									
2. Reading fast.......									
f. Use of the telephone..									

		D. E. Subject and should be taught:					D. E. Classroom hours student needs to acquire:		
	A	B	C	D	E	F	G	H	I
	Doesn't belong in D.E. curriculum	in D. E. class	on the job	in non-D.E. class	other	I have never taught it	general notion	ability to talk about it	ability to apply on job
	(X)	(X)	(X)	(X)	(X)	(X)	(hrs)	(hrs)	(hrs)
Mathematics									
a. Basic arithmetic (addition, subtraction, division, multiplication).........									
b. Business arithmetic (discounts, mark-ups, mark-downs)..........									
c. Mental arithmetic capability...........									
d. Making change.......									
e. Higher mathematics...									
f. Statistics...........									
Human Relations									
a. Ability to get others to work effectively..									
b. Ability to work with others...............									
c. Fair treatment of minorities (customers and employees).......									
d. Ability to deal with superiors............									
e. Business etiquette...									
Marketing									
a. Salesmanship.........									
b. Marketing research...									
c. Advertising..........									
d. Sales promotion (display, contests, tradeshows)..........									
e. Inventory records....									
f. Fashion trends......									
g. Buying...............									
h. Transportation.......									
i. Stockkeeping and inventory control....									
j. Credit...............									
k. World trade..........									
l. Channels of distribution............									

		D. E. Subject and should be taught:					D. E. Classroom hours student needs to acquire:		
	A	B	C	D	E	F	G	H	I
	Doesn't belong in D.E. curriculum	in D.E. class	on the job	in non-D.E. class	other	I have never taught it	general notion	ability to talk about it	ability to apply on job
	(X)	(X)	(X)	(X)	(X)	(X)	(hrs)	(hrs)	(hrs)
Financial Records									
a. Bookkeeping									
b. Reading financial statements									
c. Accounting (more than bookkeeping and reading financial statements)									
Machines of Business									
a. Typewriter									
b. Dictaphone									
c. Calculator									
d. Adding machine									
e. Cash register									
f. Weighing or measuring devices									
Economics									
a. Techniques and strategy for setting prices									
b. Free enterprise system in general									
c. National income									
d. Economic cycles									
e. Business locations									
f. Forecasting									
g. Seasonal fluctuations									
h. Money and banking (banking services and activities, role of money, etc.)									
i. Sources of funds for starting and operating a business									
j. Role of Profit									

		D.E. Subject and should be taught:					D. E. Classroom hours student needs to acquire:		
	A	B	C	D	E	F	G	H	I
	Doesn't belong in D.E. curriculum	in D.E. class	on the job	in non-D.E. class	other	I have never taught it	general notion	ability to talk about it	ability to apply on job
	(X)	(X)	(X)	(X)	(X)	(X)	(hrs)	(hrs)	(hrs)
Other Knowledge									
a. Knowledge of data processing.............									
b. Insurance..............									
c. Local trade laws.......									
d. Business law...........									
e. Federal laws and regulations............									
f. Unions.................									
g. Cultural development (appreciation of literature, art, and music).................									
Business Organization, Procedure and Management									
a. Type of business organization...........									
b. Business procedures (orders, invoices, deliveries, etc.)......									
c. Internal organization relationships..........									
d. Supervision............									
e. Labor-Management relationships..........									

Thank you for completing the section on subject areas. The next area is personal characteristics. In this section, which is much easier, there are no hour judgments required; instead, please underline for each item one or more of the following places where you think the characteristic can be taught or developed:

1. In the D. E. classroom
2. In the DECA program
3. On-the-job
4. Classroom other than D. E. in high school or community college
5. Other (if other, please specify)

In addition, encircle only one of the places you already underlined to indicate the one place where you think each personal characteristic can best be taught or developed.

For example, if you think a personal characteristic can be taught or developed only on-the-job, you should underline and encircle Number 3 for that entry; but if you think it can also be taught in D. E. classroom and in DECA program, underline 1, 2, and 3 and encircle one of those as follows:

	D. E. classroom	DECA program	On-the-job	Non D.E. classroom	Other;(please specify)
Example:	. . .1. . .	.2. .	. . [✓ 3] . .	. . 4 . .	. . . 5 . . . .

PERSONAL CHARACTERISTICS	D. E. classroom	DECA program	on-the-job	Non-D.E. classroom	Other;(please specify)
Motivation or caring about job					
a. knowing one's goal in life	1	2	3	4	5________
b. willingness to do routine work	1	2	3	4	5________
c. willingness to do extra assignments	1	2	3	4	5________
d. pride in doing work well	1	2	3	4	5________
e. enthusiasm	1	2	3	4	5________
f. aggressiveness	1	2	3	4	5________
g. ambition	1	2	3	4	5________
h. determination	1	2	3	4	5________
i. perserverance	1	2	3	4	5________
Mental Ability					
a. reasoning logically	1	2	3	4	5________
b. imagination	1	2	3	4	5________
c. quickness to grasp meaning	1	2	3	4	5________
d. ability to apply knowledge	1	2	3	4	5________
e. ability to analyze	1	2	3	4	5________
f. alertness	1	2	3	4	5________
g. thinking quickly	1	2	3	4	5________
h. memory	1	2	3	4	5________
Human Relations					
a. ability to take constructive criticism	1	2	3	4	5________
b. friendliness	1	2	3	4	5________
c. tactfulness	1	2	3	4	5________
d. ability to get along with people (deal with people, customers, employees)	1	2	3	4	5________
e. ability to talk easily with people	1	2	3	4	5________
f. congeniality (pleasing personality)	1	2	3	4	5________
g. outgoing--sociable	1	2	3	4	5________
Work Habits and Work Behavior					
a. **willingness** to abide by regulations	1	2	3	4	5________
b. loyalty	1	2	3	4	5________
c. attention to details	1	2	3	4	5________
d. willingness to work on own	1	2	3	4	5________
e. accuracy	1	2	3	4	5________
f. willing to take orders	1	2	3	4	5________

PERSONAL CHARACTERISTICS (continued)	D. E. classroom	DECA program	On-the-job	Non-D.E. classroom	Other;(please specify)
Leadership					
a. willingness to assume responsibility	1	2	3	4	5______
b. get people to work well	1	2	3	4	5______
c. desire to help others	1	2	3	4	5______
d. ability to organize	1	2	3	4	5______
Attitude Toward Job					
a. understanding what work means	1	2	3	4	5______
b. showing interest in job	1	2	3	4	5______
c. application to the task	1	2	3	4	5______
Temperament					
a. patience	1	2	3	4	5______
b. control of temper	1	2	3	4	5______
c. tolerance	1	2	3	4	5______
Other individual personality and behavioral characteristics					
a. positive attitude (optimism)	1	2	3	4	5______
b. dependability	1	2	3	4	5______
c. safety consciousness	1	2	3	4	5______
d. smile	1	2	3	4	5______
e. hand shake	1	2	3	4	5______
f. self-confidence	1	2	3	4	5______
g. sincerity	1	2	3	4	5______
h. initiative	1	2	3	4	5______
i. manners	1	2	3	4	5______
j. willingness to take constructive criticism	1	2	3	4	5______
k. appearance	1	2	3	4	5______
l. honesty	1	2	3	4	5______

There is one final request. Please give us answers to the following questions. Remember, this information will remain completely confidential.

1. Of all D. E. students that you now have in class, what percentage of the total fall within each of the following grade-point groups:

Above-average group ________%

Average group ________%

Below-average group ________%
Total 100 %

In questions 2 through 6 encircle your answer(s).

2. Size of city or town in which you are located?

1. Under 2,500	5. 25,000 to 49,999
2. 2,500 to 4,999	6. 50,000 to 99,999
3. 5,000 to 9,999	7. 100,000 and over
4, 10,000 to 24,999	

3. Please encircle one or both of the following teaching responsibilities you have:

    1. Preparatory

    2. Cooperative

4. Type of school in which you teach:

    1. High School
    2. Community College (junior college)
    3. Vocational Technical

5. Sex

    1. Male
    2. Female

6. Your age group:

    1. 20 to 30
    2. 31 to 40
    3. 41 to 50
    4. 51 to 60
    5. 61 or older

7. If time and inclination permit, you are encouraged to jot down your thinking on any part of this questionnaire--or on anything relating to the research project. Either use the limited space below or add an extra sheet. And, thank you most sincerely for your cooperation.

EXHIBIT 2

QUESTIONNAIRE TO DISTRIBUTIVE EDUCATION TEACHER COORDINATORS

Instructions:

The purpose of this questionnaire is to obtain your professional judgment concerning how much additional education or training you think you need or should have or would like to have to teach or develop in your distributive education students the subjects and personal characteristics listed below.

Please follow carefully the three steps below:

1. If you do not consider that a particular entry is a distributive education subject or should not be taught or developed in the distributive education classroom, just make an "x" in the first column and go to the next entry.

2. But if you do not put an "x" in the first column, then fill in the total numbers of hours you usually devote to that subject in your D. E. program. If none, fill in a zero.

3. Next, please indicate the additional education or training you believe you need to adequately teach or develop that subject in your D. E. students, by circling just one of the 9 numbers in the third column. If you circle Number 1, it will indicate that you believe you need a very substantial amount of additional education or training. If you circle Number 9, it will indicate that you believe you need very little or none. The numbers in between 1 and 9 indicate varying degrees of need for additional education. Thus, if you believe you are half way between needing a very substantial amount and needing little or none in a subject, you would circle Number 5 for that subject. The more education or training you believe you need, the lower the number you should circle; and the less, the higher the number you should circle.

As soon as you have considered each subject and personal characteristic, please return the completed form to us in the envelope provided. Remember that we will hold all your answers in absolute confidence.

	not a D.E. subject or should not be taught in a D.E. classroom	total class hours you usually devote to this subj. in your D.E. program	additional education needed								
			need very little or none						need a very substantial amount		
Communications	(x)	(hrs)	9	8	7	6	5	4	3	2	1
a. Writing											
1. Letter writing.......			9	8	7	6	5	4	3	2	1
2. Report writing.......			9	8	7	6	5	4	3	2	1
3. Spelling.............			9	8	7	6	5	4	3	2	1
4. Penmanship...........			9	8	7	6	5	4	3	2	1
5. Punctuation..........			9	8	7	6	5	4	3	2	1
b. Oral presentation											
1. Group discussion.....			9	8	7	6	5	4	3	2	1
2. Prepared talks.......			9	8	7	6	5	4	3	2	1
3. Person-to-person discussion...........			9	8	7	6	5	4	3	2	1
c. Basic grammar...........			9	8	7	6	5	4	3	2	1
d. Listening and observing.			9	8	7	6	5	4	3	2	1
e. Reading											
1. Reading for comprehension........			9	8	7	6	5	4	3	2	1
2. Reading fast.........			9	8	7	6	5	4	3	2	1
f. Use of the telephone....			9	8	7	6	5	4	3	2	1
Mathematics											
a. Basic arithmetic (addition, subtraction, multiplication, division)			9	8	7	6	5	4	3	2	1
b. Business arithmetic (discounts, mark-ups, mark-downs).............			9	8	7	6	5	4	3	2	1
c. Mental arithmetic capability..............			9	8	7	6	5	4	3	2	1
d. Making change...........			9	8	7	6	5	4	3	2	1
e. Higher mathematics......			9	8	7	6	5	4	3	2	1
f. Statistics..............			9	8	7	6	5	4	3	2	1
Human Relations											
a. Ability to get others to work effectively........			9	8	7	6	5	4	3	2	1
b. Ability to work with others..................			9	8	7	6	5	4	3	2	1
c. Fair treatment of minorities (customers and employees)..........			9	8	7	6	5	4	3	2	1
d. Ability to deal with superiors................			9	8	7	6	5	4	3	2	1
e. Business etiquette......			9	8	7	6	5	4	3	2	1

	not a D. E. subject or should not be taught in a D.E. classroom	total class hours you usually devote to this subj. in your D.E. program	additional education needed								
			need very little or none							need a very substantial amount	
Marketing	(x)	(hrs)	9	8	7	6	5	4	3	2	1
a. Salesmanship			9	8	7	6	5	4	3	2	1
b. Marketing research			9	8	7	6	5	4	3	2	1
c. Advertising			9	8	7	6	5	4	3	2	1
d. Sales promotion (display, contests, tradeshows)			9	8	7	6	5	4	3	2	1
e. Inventory records			9	8	7	6	5	4	3	2	1
f. Fashion trends			9	8	7	6	5	4	3	2	1
g. Buying											
h. Transportation			9	8	7	6	5	4	3	2	1
i. Stockkeeping and inventory control			9	8	7	6	5	4	3	2	1
j. Credit			9	8	7	6	5	4	3	2	1
k. World trade			9	8	7	6	5	4	3	2	1
l. Channels of distribution			9	8	7	6	5	4	3	2	1
Financial Records											
a. Bookkeeping			9	8	7	6	5	4	3	2	1
b. Reading financial statements			9	8	7	6	5	4	3	2	1
c. Accounting (more than bookkeeping and reading financial statements)			9	8	7	6	5	4	3	2	1
Machines of Business											
a. Typewriter			9	8	7	6	5	4	3	2	1
b. Dictaphone			9	8	7	6	5	4	3	2	1
c. Calculator			9	8	7	6	5	4	3	2	1
d. Adding machine											
e. Cash register			9	8	7	6	5	4	3	2	1
f. Weighing or measuring devices			9	8	7	6	5	4	3	2	1
Economics											
a. Techniques and strategy for setting prices			9	8	7	6	5	4	3	2	1
b. Free enterprise system in general			9	8	7	6	5	4	3	2	1
c. National income			9	8	7	6	5	4	3	2	1
d. Economic cycles			9	8	7	6	5	4	3	2	1
e. Business locations			9	8	7	6	5	4	3	2	1
f. Forecasting			9	8	7	6	5	4	3	2	1
g. Seasonal fluctuations			9	8	7	6	5	4	3	2	1
h. Money and banking (banking services and activities, role of money, etc.)			9	8	7	6	5	4	3	2	1
i. Sources of funds for starting and operating a business			9	8	7	6	5	4	3	2	1
j. Role of profit			9	8	7	6	5	4	3	2	1

	not a D.E. subject or should not be taught in a D.E. classroom	total class hours you usually devote to this subj. in your D.E. program	additional education needed								
			need very little or none						need a very substantial amount		
Other knowledge	(x)	(hrs)	9	8	7	6	5	4	3	2	1
a. Knowledge of data processing			9	8	7	6	5	4	3	2	1
b. Insurance			9	8	7	6	5	4	3	2	1
c. Local trade laws			9	8	7	6	5	4	3	2	1
d. Business law			9	8	7	6	5	4	3	2	1
e. Federal laws and regulations			9	8	7	6	5	4	3	2	1
f. Unions			9	8	7	6	5	4	3	2	1
g. Cultural development (appreciation of literature, art and music)			9	8	7	6	5	4	3	2	1
Business Organization, Procedure and Management											
a. Type of business organization			9	8	7	6	5	4	3	2	1
b. Business procedures (orders, invoices, deliveries, etc.)			9	8	7	6	5	4	3	2	1
c. Internal organization relationships			9	8	7	6	5	4	3	2	1
d. Supervision			9	8	7	6	5	4	3	2	1
e. Labor-Management relationships			9	8	7	6	5	4	3	2	1

	Very well equipped					Very poorly equipped			
General D. E. Teaching Matters	9	8	7	6	5	4	3	2	1
a. Coordinating skills	9	8	7	6	5	4	3	2	1
b. Designing individual projects	9	8	7	6	5	4	3	2	1
c. Teaching with projects	9	8	7	6	5	4	3	2	1
d. Guidance	9	8	7	6	5	4	3	2	1

Thank you for giving us the necessary information concerning subjects and skills. Now please turn your attention to the personal characteristics listed below. For these characteristics, please think about how well equipped you believe you are right now to teach or develop them in your D. E. students -- not about how much additional education or training you would need. As before, for every entry, circle one of the 9 figures to indicate how well equipped you feel you are now to teach or develop **each** characteristic. The better equipped you are, the higher the number.

	Very well equipped						Very poorly equipped		
	9	8	7	6	5	4	3	2	1
Personal Characteristics									
1. Motivation or caring about job									
a. Knowing one's goal in life	9	8	7	6	5	4	3	2	1
b. Willingness to do routine work	9	8	7	6	5	4	3	2	1
c. Willingness to do extra assignments	9	8	7	6	5	4	3	2	1
d. Pride in doing work well	9	8	7	6	5	4	3	2	1
e. Enthusiasm	9	8	7	6	5	4	3	2	1
f. Aggreessiveness	9	8	7	6	5	4	3	2	1
g. Ambition	9	8	7	6	5	4	3	2	1
h. Determination	9	8	7	6	5	4	3	2	1
i. Perseverance	9	8	7	6	5	4	3	2	1
2. Mental ability									
a. Reasoning logically	9	8	7	6	5	4	3	2	1
b. Imagination	9	8	7	6	5	4	3	2	1
c. Quickness to grasp meaning	9	8	7	6	5	4	3	2	1
d. Ability to apply knowledge	9	8	7	6	5	4	3	2	1
e. Ability to analyze	9	8	7	6	5	4	3	2	1
f. Alertness	9	8	7	6	5	4	3	2	1
g. Thinking quickly	9	8	7	6	5	4	3	2	1
h. Memory	9	8	7	6	5	4	3	2	1
3. Human relations									
a. Ability to take constructive criticism	9	8	7	6	5	4	3	2	1
b. Friendliness	9	8	7	6	5	4	3	2	1
c. Tactfulness	9	8	7	6	5	4	3	2	1
d. Ability to get along with people (deal with people, customers, employees)	9	8	7	6	5	4	3	2	1
e. Ability to talk easily with people	9	8	7	6	5	4	3	2	1
f. Congeniality (pleasing personality)	9	8	7	6	5	4	3	2	1
g. Outgoing--sociable	9	8	7	6	5	4	3	2	1
4. Work habits and work behavior									
a. Willingness to abide by regulations	9	8	7	6	5	4	3	2	1
b. Loyalty	9	8	7	6	5	4	3	2	1
c. Attention to details	9	8	7	6	5	4	3	2	1
d. Willingness to work on own	9	8	7	6	5	4	3	2	1
e. Accuracy	9	8	7	6	5	4	3	2	1
f. Willing to take orders	9	8	7	6	5	4	3	2	1
5. Leadership									
a. Willingness to assume responsibility	9	8	7	6	5	4	3	2	1
b. Get people to work well	9	8	7	6	5	4	3	2	1
c. Desire to help others	9	8	7	6	5	4	3	2	1
d. Ability to organize	9	8	7	6	5	4	3	2	1

	Very well equipped						Very poorly equipped		
Personal Characteristics (con't.)	9	8	7	6	5	4	3	2	1
6. Attitude toward job									
a. Understanding what work means.....	9	8	7	6	5	4	3	2	1
b. Showing interest in job...........	9	8	7	6	5	4	3	2	1
c. Application to the task...........	9	8	7	6	5	4	3	2	1
7. Temperament									
a. Patience..........................	9	8	7	6	5	4	3	2	1
b. Control of temper.................	9	8	7	6	5	4	3	2	1
c. Tolerance.........................	9	8	7	6	5	4	3	2	1
8. Other individual personality and behavioral characteristics									
a. Positive attitude (optimism)......	9	8	7	6	5	4	3	2	1
b. Dependability.....................	9	8	7	6	5	4	3	2	1
c. Safety consciousness..............	9	8	7	6	5	4	3	2	1
d. Smile.............................	9	8	7	6	5	4	3	2	1
e. Hand shake........................	9	8	7	6	5	4	3	2	1
f. Self-confidence...................	9	8	7	6	5	4	3	2	1
g. Sincerity.........................	9	8	7	6	5	4	3	2	1
h. Initiative........................	9	8	7	6	5	4	3	2	1
i. Manners...........................	9	8	7	6	5	4	3	2	1
j. Willingness to take constructive criticism..........................	9	8	7	6	5	4	3	2	1
k. Appearance........................	9	8	7	6	5	4	3	2	1
l. Honesty...........................	9	8	7	6	5	4	3	2	1

Just one final request. Please give us answers to the following questions so that we can better interpret the findings. And remember this information will remain completely confidential.

1. Type of school in which you received your education (check one or more):
   ________Vocational-technical institute
   ________2-year community college
   ________4-year college or university
   ________Military responsibility related to (check one)
      ____________Distribution
      ____________Supervision
   ________Other; if so, please specify______________________________

2. Highest degree held (check one):
   ________Less than 2 years post high school
   ________AA
   ________BA
   ________Masters
   ________ Doctorate

3. College major(s):______________________________minor(s):________________________
   ______________________________ ________________________

4. Last calendar year in which you enrolled in a formal class related to your vocational education job:________________________

5. Number of years you have been professionally connected with D. E.______________either as a practioner or a teacher.

6. Number of years you have been teaching D. E.______________

7. Type or types of school in which you teach:
________ High School
________ Community College (or junior college)
________ Vocational technical
________ 4-year university
________ Other; if so, please specify ______________________________

8. Your age group:
________ 20 to 30
________ 31 to 40
________ 41 to 50
________ 51 to 60
________ 61 or older

9. Years of experience in a distributive occupation before employment in distributive education (consider 2000 hours equivalent to one year): ____________________

10. If time and inclination permit, you're encouraged to jot down anything you wish about this questionnaire, major problems confronting you in the D. E. field, or suggestions to improve the present D. E. picture. And thank you sincerely for your cooperation.

For All States Except Washington

Table A1 Comparison of Background of Coordinators in High Schools and Community Colleges

Coordinators' perception of distributive education students' ability

	High School (per cent)[1]	Comm. College (per cent)[2]
Above average group	17.7	22.6
Average group	51.7	55.1
Below average group	30.6	22.3
	100.0 %	100.0 %

Size of town in which they are located

	High School (per cent)	Comm. College (per cent)
Under 2,500	5.5	1.9
2,500 to 4,999	6.4	3.8
5,000 to 9,999	12.7	9.4
10,000 to 24,999	20.6	13.2
25,000 to 49,999	15.5	22.6
50,000 to 99,999	14.3	18.9
100,000 and over	25.0	30.2
	100.0 %	100.0 %

Their type(s) of teaching responsibilities

	High School (per cent)	Comm. College (per cent)
Preparatory	66.5	63.0
Cooperative	91.0	71.3

Their Sex

	High School (per cent)	Comm. College (per cent)
Male	82.1	91.6
Female	17.9	8.4
	100.0 %	100.0 %

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1. Total teacher-coordinators responding 314.
2. Total teacher-coordinators responding 114.

Table A1 (continued)

Their age

	High School (per cent)	Comm. College (per cent)
20 to 30	33.7	23.0
31 to 40	30.2	35.0
41 to 50	24.4	28.0
51 to 60	8.9	14.0
61 or older	2.8	0.0
	100.0 %	100.0 %

For All States Except Washington

Table A2 Comparison of Background of Coordinators in High Schools and Community Colleges

(Total teacher-coordinators responding: High Schls, 314; Comm. Coll. 114)

Type of school in which coordinators received their education

	High School (per cent)	Comm. College (per cent)
Vocational-technical institute	0.0	1.8
2-year community college	3.7	9.1
4-year college or university	74.2	65.9
Military responsibility related to:		
distribution	5.7	4.3
supervision	11.4	15.9
Other	5.0*	3.0**
	100.0 %	100.0 %

Highest degree coordinator held

Type	High School (per cent)	Comm. College (per cent)
Less than 2 years post high school	0.3	0.0
A. A.	0.3	0.9
B. A.	52.0	32.2
Masters	46.4	64.3
Doctorate	1.0	2.6
	100.0 %	100.0 %

Last calendar year coordinator was enrolled in a formal class related to his vocational education job

Year	High School (per cent)	Comm. College (per cent)
1968	25.0	32.7
1967	39.5	29.1
1966	14.9	19.1
1965	6.1	3.6
1964	3.7	1.8
1963 or earlier	10.8	13.7
	100.0 %	100.0 %

* Includes: Air Force Intelligence, clerical and administration, D. E. major with over 4,000 hours of selling experience, Bonsutle Drama School, graduate school.

** Includes: Business school, graduate school, on-the-job training, business education, radioman school, Louisville Conservatory of Music, entertainment (music), teachers' college, exploratory, vocational school, law school, communications.

Table A2 (continued)

Number of years coordinator has been professionally connected with distributive education either as a practitioner or teacher

	High School (years)	Comm. College (years)
Mid-point (median)	5	5
Maximum number of years	37	30
Minimum number of years	1	1

Number of years coordinator has actually been teaching distributive education

	High School (years)	Comm. College (years)
Mid-point (median)	3	3
Maximum number of years	37	22
Minimum number of years	1	1

Age of coordinator

Age Group	High School (per cent)	Comm. College (per cent)
20 to 30	30.8	35.4
31 to 40	30.8	28.3
41 to 50	22.0	21.2
51 to 60	14.4	14.2
61 or over	2.0	0.9
	100.0 %	100.0 %

Years of experience in a distributive occupation before coordinator's employment in distributive education (consider 2000 hrs. equivalent to one year)

	High School (per cent)	Comm. College (per cent)
Mid-point (median)	4	7
Maximum number of years	37	37
Minimum number of years	1	1

For Washington State Only

Table A3 Comparison of Background of Coordinators in High Schools and Community Colleges

(Total teacher-coordinators responding: High Schls, 54; Comm. Coll., 21)
Type of school in which coordinators received their education

	High School (per cent)	Comm. College (per cent)
Vocational-technical institute	0.0	3.3
2-year community college	2.8	10.0
4-year college or university	72.2	70.0
Military responsibility related to:		
distribution	2.8	6.7
supervision	12.5	10.0
*Other	9.7	0
	100.0 %	100.0 %

Highest degree coordinator holds

Type	High School (per cent)	Comm. College (per cent)
Less than 2 years post high school	0	0
A.A.	0	0
B.A.	68.6	40
Masters	31.4	55
Doctorate	0	5
	100.0 %	100.0 %

Last calendar year coordinator was enrolled in a formal class related to his vocational education job

Year	High School (per cent)	Comm. College (per cent)
1968	23.1	38.1
1967	40.2	23.8
1966	13.5	14.3
1965	9.6	14.3
1964	1.9	9.5
1963 or earlier	11.7	0
	100.0 %	100.0 %

* Includes: department store, manufacturing plant, outside salesman, office manager, work experience, administration, military police.

Table A3 (continued)

Number of years coordinator has been professionally connected with distributive education either as a practitioner or teacher

	High School (years)	Comm. College (years)
Mid-point (median)	4	6
Maximum number of years	31	20
Minimum number of years	1	1

Number of years coordinator has actually been teaching distributive education

	High School (years)	Comm. College (years)
Mid-point (median)	3	4
Maximum number of years	22	11
Minimum number of years	1	1

Age of coordinator

Age Group	High School (per cent)	Comm. College (per cent)
20 to 30	26.9	15
31 to 40	32.7	25
41 to 50	23.1	40
51 to 60	15.4	15
61 or over	1.9	5
	100.0 %	100.0 %

Years of experience in a distributive occupation before coordinator's employment in distributive education (consider 2000 hrs. equivalent to one year)

	High School (per cent)	Comm. College (per cent)
Mid-point (median)	5	10
Maximum number of years	40	35
Minimum number of years	1	3

For All States Except Washington

Table A4 Coordinators' College Majors[1]
(Total teacher-coordinators responding: High Schls, 314; Comm. Coll. 114)

Field	Major (per cent)	
	H. S.	C. C.
Generally more appropriate for D. E.	87.5*	102.7*
Business administration	26.3	30.0
Distributive education	14.1	23.6
Other**	11.6	1.1
Marketing	11.4	16.4
Economics	5.1	4.5
Accounting	4.4	12.7
Retailing	2.4	2.7
Commerce	1.7	0.0
Industrial education	1.7	0.0
Vocational education	1.3	2.7
Sales management	1.0	0.0
Business management	1.0	0.9
Management	1.0	3.6
Merchandising and selling	0.7	0.0
Advertising	0.7	0.0
Insurance	0.7	0.0
Supervision	0.3	0.0
Labor	0.3	0.0
Bookkeeping	0.3	0.0
Commercial law	0.3	0.0
Banking	0.3	0.0

(continued on next page)

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[1] To give some meaning to the many majors that the coordinators mentioned, a state supervisor of distributive education separated the total list into 2 categories. The first category includes those that seem generally more appropriate majors for a coordinator's background. The second category, those that generally don't seem applicable to a coordinator's background.

* This is a total of all the percentages for the majors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 major; (2) the percentage for each entry reflects the percentage of total respondents who listed that major.

** Includes: Administration and Supervision of Vocational Education, Agricultural Education, Broadcasting, Business Economics, Clothing, Hotel-Motel-Restaurant Management, Institution Management, Personnel Management, Public Speaking and Debate, Salesmanship, Textiles.

Table A4 (continued)

Field	Major (per cent) H. S.	C. C.
Finance	0.3	0.9
Personnel	0.3	0.0
Industrial management	0.3	0.0
Distribution	0.0	0.9
Marketing and merchandising	0.0	0.9
Transportation	0.0	1.8
Not generally applicable to D. E.	68.7*	41.6*
Business education	24.9	16.4
Other**	4.8	0.9
Social studies	4.7	0.9
Education	4.0	2.7
English	3.7	2.7
History	3.4	0.9
Social science	2.0	0.9
Guidance and counseling	1.7	0.9
Industrial arts	1.7	0.0
Secretarial science	1.3	0.0
Physical education	1.0	0.9
Sociology	1.0	1.8
Secondary education	1.0	0.0
Geology	1.0	0.0
School administration	1.0	0.0
Mathematics	0.7	1.8
Home economics	0.7	0.9
Agriculture	0.7	0.0
Psychology	0.7	2.7
Vocational agriculture	0.7	0.9
Science	0.7	0.0
Political science	0.7	0.0
Chemistry	0.7	0.0

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* This is a total of all the percentages for the majors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 major; (2) the percentage for each entry reflects the percentage of total respondents who listed that major.

** Includes: Agricultural Economics, Agricultural Education, Aviation, Biological Science, Curriculum & Instruction, Engineering, Higher Education.

Table A4 (continued)

Field	Major (per cent) H. S.	C. C.
Elementary education	0.7	0.0
Geography	0.7	0.0
French	0.7	0.0
Government	0.7	0.0
Biology	0.7	0.0
Administration	0.3	1.8
Law	0.3	0.9
Art	0.3	0.9
Administrative education	0.3	0.9
Homemaking	0.3	0.0
Educational administration	0.3	0.0
German	0.3	0.0
Office education	0.3	0.0
Philosophy	0.0	0.9
World history	0.0	0.9

For Washington State Only

Table A5 Coordinators' College Majors[1]

(Total teacher-coordinators responding: High Schls, 54; Comm. Coll., 21)

Field	Major (per cent) H. S.	Major (per cent) C. C.
Generally more appropriate for D. E.	76.0*	100.2*
Business administration	36.0	33.3
Marketing	6.0	9.5
Economics	18.0	9.5
Personnel	0.0	9.5
Distributive education	6.0	4.8
Distribution	0.0	4.8
Management	0.0	4.8
Transportation	0.0	4.8
Merchandising and selling	0.0	4.8
Retailing	0.0	4.8
Industrial management	0.0	4.8
Accounting	2.0	0.0
Business management	2.0	0.0
Finance	2.0	0.0
Marketing and merchandising	2.0	0.0
Commerce	2.0	0.0
Policy and administration	0.0	4.8
Not generally applicable to D. E.	60.0*	61.2*
Education	2.0	14.3
American history	0.0	9.5

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[1] To give some meaning to the many majors that the coordinators mentioned, a state supervisor of distributive education separated the total list into 2 categories. The first category includes those that seem generally more appropriate for a coordinator's background. The second category, those that generally don't seem applicable to a coordinator's background.

* This is a total of all the percentages for the majors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 major; (2) the percentage for each entry reflects the percentage of total respondents who listed that major.

Table A5 (continued)

Field	Major (per cent) H. S.	C. C.
Agriculture	0.0	9.5
Business education*	18.0	4.8
Music	0.0	4.8
Nautical science	0.0	4.8
Law	0.0	4.8
Office occupation	0.0	4.8
Industrial psychology	0.0	4.8
Administration	2.0	0.0
Mathematics	2.0	0.0
History	2.0	0.0
Home economics	6.0	0.0
English	2.0	0.0
Physical education	6.0	0.0
Social studies	4.0	0.0
Industrial arts	2.0	0.0
Social science	4.0	0.0
Liberal arts	2.0	0.0
Physics	2.0	0.0
Speech	2.0	0.0
Forestry	2.0	0.0
Health	2.0	0.0

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* Classified as non-business because this area stresses typing, shorthand, and other secretarial skills.

For All States Except Washington

Table A6 Coordinators' College Minors[1]

(Total teacher-coordinators responding: High Schls, 314; Comm. Coll. 114)

Field	Minor (per cent)	
	H. S.	C. C.
Contributes significantly to a D. E. coordinator's job	112.4*	92.5*
Economics	16.5	16.0
English	11.3	5.3
Social studies	10.9	5.3
Education	10.5	5.3
Business administration	10.1	11.7
Other**	6.9	1.0
Social science	6.8	3.2
Distributive education	5.2	7.4
Accounting	4.8	2.1
Mathematics	4.0	3.2
Psychology	4.0	5.3
Business education	2.8	6.4
Marketing	2.8	9.6
Speech	2.0	3.2
Sociology	1.6	0.0
Guidance and counseling	1.6	0.0

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[1] To give some meaning to the many minors that the coordinators mentioned, a state supervisor of distributive education separated the total list into 2 categories. The first category includes those that contribute significantly to a distributive education coordinator's job. The second category, those that don't contribute significantly to a distributive education coordinator's job.

* This is a total of all the percentages for the minors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 minor; (2) the percentage for each entry reflects the percentage of total respondents who listed that minor.

** Includes: Hotel-Motel-Restaurant Management, Industrial Management, Operations Research, Personnel Management, Statistics, Textiles, Typewriter.

Table A6 (continued)

Field	**Minor** (per cent)	
	H. S.	**C. C.**
Retailing	1.2	2.1
Law	1.2	0.0
Industrial education	1.2	1.1
Finance	0.8	1.1
Art	0.8	2.1
Secretarial science	0.8	0.0
Merchandising and selling	0.4	0.0
Government	0.4	0.0
Commerce	0.4	0.0
Business engineering	0.4	0.0
Advertising	0.4	1.1
Data processing	0.4	0.0
Real Estate	0.4	0.0
Language arts	0.4	0.0
Public relations	0.4	0.0
Personnel administration	0.4	0.0
Business law	0.4	0.0
Does not contribute significantly to a D. E. coordinator's job	38.7*	20.7*
Other**	9.1	1.4
History	5.6	5.3
Physical education	4.4	1.1
Science	3.2	2.1
Philosophy	2.4	0.0
Dramatics	1.2	0.0
Fine arts	1.2	0.0
Spanish	1.2	1.1
Political science	0.8	4.3
Physics	0.8	0.0

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* This is a total of all the percentages for the minors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 minor; (2) the percentage for each entry reflects the percentage of total respondents who listed that minor.

** Includes: Adult Education, Agricultural Engineering, Biological Science, Driver Education, Engineering, Latin, Natural Science, Nutrition, Plant Pathology, Social Education, Zoology.

Table A6 (continued)

Field	Minor (per cent)	
	H. S.	C. C.
French	0.8	0.0
Biology	0.8	0.0
Language	0.8	2.1
American history	0.4	1.1
Industrial arts	0.4	0.0
Elementary education	0.4	1.1
Health	0.4	0.0
Agriculture	0.4	0.0
Earth science	0.4	0.0
Special education	0.4	0.0
Elementary teaching	0.4	0.0
German	0.4	0.0
Safety	0.4	0.0
Educational A. in guidance	0.4	0.0
School administration	0.4	1.1
World history	0.4	0.0
Liberal arts	0.8	0.0
Geography	0.4	0.0

For Washington State Only

Table A7 Coordinators' College Minors[1]

(Total teacher-coordinators responding: High Schls, 54; Comm. Coll., 21)

Field	Minor (per cent) H. S.	Minor (per cent) C. C.
Contributes significantly to a D. E. coordinator's job	81.5*	143.5*
English	20.4	6.2
Economics	14.3	18.8
Sociology	12.3	18.8
Education	8.2	18.8
Business education	6.1	0.0
Mathematics	4.1	12.5
Psychology	4.1	6.2
Business administration	2.0	6.2
Social studies	2.0	0.0
Accounting	2.0	18.8
Social science	2.0	0.0
Guidance and counseling	2.0	6.2
Government	2.0	0.0
Management	0.0	6.2
Personnel	0.0	6.2
Industrial management	0.0	6.2
Labor relations	0.0	6.2
Policy and administration	0.0	6.2

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[1] To give some meaning to the many minors that the coordinators mentioned, a state supervisor of distributive education separated the total list into 2 categories. The first category includes those that contribute significantly to a distributive education coordinator's job. The second category, those that don't contribute significantly to a distributive education coordinator's job.

* This is a total of all the percentages for the minors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 minor; (2) the percentage for each entry reflects the percentage of total respondents who listed that minor.

Table A7 (continued)

Field	Minor (per cent)	
	H. S.	C. C.
Does not contribute significantly to a D. E. coordinator's job	52.5*	24.8*
History	14.3	0.0
Political science	4.1	0.0
Music	4.1	0.0
Geography	2.0	6.2
American history	2.0	6.2
Elementary education	2.0	0.0
Science	2.0	6.2
Physical education	2.0	0.0
Chemistry	2.0	0.0
Industrial arts	2.0	0.0
English literature	2.0	0.0
Linguistics	2.0	0.0
Forestry	2.0	0.0
Botany	2.0	0.0
Electronics	2.0	0.0
Health	2.0	0.0
French	2.0	0.0
Biology	2.0	0.0
Dramatics	0.0	6.2

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* This is a total of all the percentages for the minors in this particular category. Also, this total isn't 100% for the following reasons: (1) some coordinators mentioned more than 1 minor; (2) the percentage for each entry reflects the percentage of total respondents who listed that minor.

For All States Except Washington

Table A8 Total Class Hours Devoted to Subject in the High School Distributive Education Program
(Median column gives mid-point of respondents' estimated hours)

		Range		
Subject	Median (hrs)	Max. (hrs)	Min. (hrs)	No. of Respondents
Salesmanship	25	99[1]	1	290
Group discussion	10	99	0	247
Advertising	10	99	0	289
Sales promotion	10	99	0	289
Prepared talks	5	99	0	252
Person-to-person discussion	5	99	0	214
Basic arithmetic	5	99	0	224
Business arithmetic	5	99	0	270
Ability to work with others	5	99	0	262
Marketing research	5	99	0	264
Buying	5	90	0	284
Channels of distribution	5	99	0	290
Ability to get others to work effectively	4	99	0	250
Stockkeeping and inventory control	4	99	0	286
Credit	4	99	0	294
Free enterprise system in general	4	99	0	286
Type of business organization	4	99	0	250
Business procedures	4	99	0	276
Use of the telephone	3	30	0	255
Business etiquette	3	99	0	256
Cash register	3	30	0	278
Business law	3	99	0	242
Letter writing	2	60	0	191
Report writing	2	99	0	182
Spelling	2	50	0	147
Basic grammar	2	99	0	136
Listening and observing	2	99	0	192
Reading for comprehension	2	99	0	122
Mental arithmetic capability	2	99	0	214
Making change	2	99	0	264

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[1] For tabulation on IBM cards, all figures had to be 2 digits or less. As a result, "99" shown here really means 99 or more hours.

Table A8 (continued)

		Range		
Subject	Median (hrs)	Max. (hrs)	Min. (hrs)	No. of Respondents
Fair treatment of minorities	2	99	0	250
Ability to deal with superiors	2	99	0	257
Inventory records	2	90	0	278
Fashion trends	2	90	0	273
Transportation	2	80	0	261
Bookkeeping	2	99	0	160
Techniques and strategy for setting prices	2	99	0	273
Business locations	2	90	0	281
Money and banking	2	99	0	262
Sources of funds for starting and operating a business	2	99	0	279
Role of profit	2	99	0	279
Insurance	2	99	0	246
Federal laws and regulations	2	99	0	261
Internal organization relations	2	99	0	263
Supervision	2	99	0	259
Labor-management relations	2	99	0	259
Penmanship	1	36	0	121
Punctuation	1	72	0	123
Statistics	1	15	0	111
World trade	1	20	0	229
Reading financial statements	1	90	0	201
Accounting	1	90	0	97
Adding machine	1	50	0	171
Weighing or measuring devices	1	50	0	219
National income	1	20	0	244
Economic cycles	1	25	0	250
Forecasting	1	20	0	240
Seasonal fluctuations	1	30	0	263
Knowledge of data processing	1	15	0	153
Local trade laws	1	20	0	257
Unions	1	25	0	249
Cultural development	1	20	0	103
Reading fast	0	99	0	84
Higher mathematics	0	5	0	67
Typewriter	0	25	0	59
Dictaphone	0	25	0	55
Calculator	0	50	0	95

For Washington State Only

Table A9 Total Class Hours Devoted to Subject in the High School Distributive Education Program

(Median column gives mid-point of respondents' estimated hours)

Subject	Median (hrs)	Range		No. of Respondents
		Max. (hrs)	Min. (hrs)	
Salesmanship	30	99[1]	10	46
Group discussion	20	99	0	38
Prepared talks	10	99	0	38
Person-to-person discussion	10	99	0	33
Reading for comprehension	10	50	0	18
Business arithmetic	10	99	3	44
Advertising	10	90	4	49
Sales promotion	10	72	2	49
Basic arithmetic	6	99	0	38
Ability to work with others	6	72	1	39
Listening and observing	5	99	0	27
Mental arithmetic capability	5	36	0	36
Making change	5	30	1	44
Ability to get others to work effectively	5	72	0	41
Fair treatment of minorities	5	36	0	33
Marketing research	5	36	0	46
Buying	5	90	0	43
Credit	5	30	1	48
Channels of distribution	5	60	1	48
Cash register	5	99	0	10
Free enterprise system in general	5	56	1	47
Letter writing	4	20	0	35
Report writing	4	40	0	32
Ability to deal with superiors	4	36	0	39
Business etiquette	4	36	1	40
Inventory records	4	50	0	49
Fashion trends	4	20	0	45
Stockkeeping and inventory control	4	50	0	46
Bookkeeping	4	36	1	44
Money and banking	4	28	1	46

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[1] For tabulation on IBM cards, all figures had to be 2 digits or less. As a result, "99" shown here really means 99 or more hours.

Table A9 (continued)

Subject	Median (hrs)	Range		No. of Respondents
		Max. (hrs)	Min. (hrs)	
Role of profit	4	50	1	41
Business law	4	36	0	32
Type of business organization	4	30	0	42
Business procedures	4	72	0	42
Use of the telephone	3	25	0	40
Transportation	3	99	0	44
Techniques and strategy for setting prices	3	38	0	24
Business locations	3	36	0	48
Spelling	2	36	0	20
Basic grammar	2	36	0	15
Statistics	2	30	0	22
World trade	2	15	0	41
Reading financial statements	2	10	0	44
National income	2	10	0	37
Economic cycles	2	10	0	41
Seasonal fluctuations	2	10	0	40
Sources of funds for starting and operating a business	2	28	0	38
Insurance	2	20	0	46
Local trade laws	2	10	0	45
Federal laws and regulations	2	20	0	38
Unions	2	20	0	38
Cultural development	2	20	0	34
Internal organization relations	2	20	0	14
Supervision	2	20	0	47
Labor-management relations	2	20	0	47
Punctuation	1	36	0	18
Adding machine	1	25	0	11
Weighing or measuring devices	1	99	0	13
Forecasting	1	15	0	38
Knowledge of data processing	1	15	0	42
Penmanship	0	10	0	16
Reading fast	0	10	0	10
Higher mathematics	0	30	0	14
Accounting	0	10	0	43
Typewriter	0	2	0	26
Dictaphone	0	0	0	39
Calculator	0	10	0	19

For Washington State Only

Table A10 High School Coordinators' Perceived Need for Additional Education by Subject
(Average scores - based on scale ranging from 1 through 9)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (from greatest to least need)	Number of Responses
Knowledge of data processing	1	4.47	39
World trade	2	5.46	35
Forecasting	3	5.47	35
Local trade laws	4	5.53	45
Marketing research	5	5.60	45.
Federal laws and regulations	6	5.62	35
Fashion trends	7	5.76	41
Statistics	7	5.76	17
Techniques and strategy for setting prices	9	5.97	13
Dictaphone	10	6.00	34
Transportation	11	6.02	40
Buying	12	6.06	32
Cultural development	13	6.08	32
Advertising	14	6.10	44
Business law	15	6.12	30
Higher mathematics	16	6.20	10
Sources of funds for starting and operating a business	17	6.22	36
National income	18	6.23	28
Insurance	19	6.26	41
Sales promotion	19	6.26	42
Stockkeeping and inventory control	21	6.29	42
Inventory records	22	6.43	44
Money and banking	23	6.44	44
Penmanship	24	6.50	12

Table A10 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (from greatest to least need)	Number of Responses
Seasonal fluctuations	25	6.51	39
Group discussion	26	6.54	39
Unions	27	6.56	36
Salesmanship	27	6.56	45
Labor-management relations	29	6.61	42
Reading fast	30	6.62	13
Prepared talks	30	6.62	39
Bookkeeping	32	6.65	41
Credit	33	6.66	44
Economic cycles	34	6.69	39
Adding machine	34	6.69	7
Basic grammar	36	6.76	17
Supervision	37	6.77	41
Accounting	38	6.79	4
Internal organization relations	39	6.85	13
Reading financial statements	39	6.85	39
Listening and observing	41	6.87	31
Business procedures	42	6.88	39
Use of the telephone	43	6.90	39
Business locations	44	6.91	44
Person-to-person discussion	45	6.94	34
Punctuation	45	6.94	17
Reading for comprehension	47	6.95	19
Role of profit	48	7.02	39
Fair treatment of minorities	49	7.03	35
Spelling	50	7.06	18
Weighing or measuring devices	51	7.07	10
Business etiquette	52	7.10	42
Business arithmetic	52	7.10	40

Table A10 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (from greatest to least need)	Number of Responses
Report writing	54	7.14	29
Channels of distribution	55	7.18	44
Free enterprise system in general	56	7.20	40
Type of business organization	57	7.22	39
Ability to deal with superiors	58	7.24	41
Cash register	59	7.28	6
Ability to get others to work effectively	60	7.29	42
Ability to work with others	61	7.33	42
Letter writing	62	7.41	32
Calculator	63	7.50	14
Basic arithmetic	64	7.70	33
Mental arithmetic capability	65	7.77	30
Typewriter	66	7.86	23
Making change	67	7.95	39

For All States Except Washington

Table All High School Coordinators' Perceived Need for Additional Education by Subject
(Rank of average (mean) scores - based on scale ranging from 1 through 9)

Subject	Ranking by Average (Mean) Need Score (from greatest to least need)	Need Much[1] (per cent)	Need Little[2] (per cent)	Number of Responses
Communications				
a. Writing				
1. Letter writing	56	5.6	61.5	195
2. Report writing	47	7.7	58.8	182
3. Spelling	53	12.5	65.1	152
4. Penmanship	33	13.8	51.5	130
5. Punctuation	43	7.8	54.3	129
b. Oral presentation				
1. Group discussion	38	10.2	57.4	235
2. Prepared talks	40	11.5	55.3	215
3. Person-to-person discuss'n	55	7.4	62.8	133
c. Basic grammar	26	15.0	53.4	192
d. Listening and observing	45	9.9	56.8	115
e. Reading				
1. Reading for comprehension	36	13.0	55.7	77
2. Reading fast	17	19.5	45.5	241
f. Use of the telephone	64	7.5	69.3	214

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1. Only the per cent of respondents who encircled 1, 2, and 3.

2. Only the per cent of respondents who encircled 7, 8, and 9.

Table A11 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Responses
Mathematics				
a. Basic arithmetic (addition, subtraction, etc.)	65	9.3	74.8	257
b. Business arithmetic (discounts, markups, markdowns)	62	10.9	68.5	192
c. Mental arithmetic capability	57	13.0	65.6	248
d. Making change	67	7.3	82.3	71
e. Higher mathematics	4	26.7	36.6	108
f. Statistics	13	21.3	48.1	248
Human Relations				
a. Ability to get others to work effectively	50	12.1	66.1	256
b. Ability to work with others	58	11.3	71.5	244
c. Fair treatment of minorities	60	8.6	68.9	255
d. Ability to deal with superiors	62	11.4	71.4	253
e. Business etiquette	59	11.1	70.4	258
Marketing				
a. Salesmanship	35	17.7	59.4	288
b. Marketing research	2	25.6	31.5	254
c. Advertising	11	20.2	41.1	282
d. Sales promotion (display, contests, tradeshows)	7	21.1	40.4	285

Table A11 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Respondents
e. Inventory records	29	10.0	50.2	269
f. Fashion trends	8	20.0	39.6	265
g. Buying	12	20.4	40.1	157
h. Transportation	25	8.2	52.5	257
i. Stockkeeping and inventory control	31	9.8	54.0	276
j. Credit	31	14.3	54.3	280
k. World trade	3	27.1	31.2	218
l. Channels of distribution	49	9.3	62.0	279
Financial Records				
a. Bookkeeping	46	14.2	60.6	155
b. Reading financial statements	42	11.1	17.1	190
c. Accounting (more than bookkeeping and reading financial statements)	15	17.5	48.5	97
Machines of Business				
a. Typewriter	50	15.8	68.4	57
b. Dictaphone	5	30.4	46.4	56
c. Calculator	22	18.9	55.8	95
d. Adding machine	66	5.0	80.0	80
e. Cash register	61	8.7	68.4	263
f. Weighing or measuring devices	34	14.7	54.8	197

Table All (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Responses
Economics				
a. Techniques and strategy for setting prices	16	14.0	44.5	263
b. Free enterprise system in general	48	10.1	60.6	277
c. National income	24	11.0	50.4	236
d. Economic cycles	19	14.0	47.3	243
e. Business locations	43	11.1	60.1	271
f. Forecasting	8	17.9	39.0	223
g. Seasonal fluctuations	28	11.9	52.9	261
h. Money and banking (banking services and activities)	23	13.6	52.9	257
i. Sources of funds for starting, operating a business	27	13.4	51.8	268
j. Role of profit	41	11.9	58.1	277
Other Knowledge				
a. Knowledge of data processing	1	48.3	23.1	147
b. Insurance	20	11.2	47.2	233
c. Local trade laws	6	18.5	36.7	237
d. Business law	18	12.3	46.1	228
e. Federal laws and regulations	10	19.8	39.1	243
f. Unions	14	14.8	39.8	229
g. Cultural development (appreciation of the arts)	30	8.2	49.0	98

Table All (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Responses
Business Organization, Procedure and Management				
a. Type of business organization	54	8.3	64.3	263
b. Business procedures (orders, invoices, etc.)	52	8.3	61.2	263
c. Internal organization relations	37	8.6	56.6	244
d. Supervision	39	12.4	57.9	242
e. Labor-management relations	21	14.6	50.0	246

For High Schools in Washington Only

Table A12 Importance (According to Employers of Non-supervisors) of Areas in which Coordinators Say They Especially Need Additional Education

Areas	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Local trade laws	4	30
Federal laws and regulations	6	29
Fashion trends	7	27
Sales promotion	19	31
Stockkeeping and inventory control	21	18
Inventory records	22	22
Penmanship	24	16
Group discussion	26	20
Salesmanship	27	4
Labor-management relations	29	*
Credit	33	24

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1. Only the upper 50% of the 67 skills and knowledge are included.

2. Only the upper 50% of the 62 skills and knowledge are included.

* Entry isn't found in the list that employers considered.

For High Schools in Washington Only

Table A13 Importance (According to Employers of Non-supervisors) of Areas in which Coordinators Say They Do Not Need as much Additional Education

Areas	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Adding machine	34	25
Basic grammar	36	9
Supervision	37	*
Internal organization relations	39	15
Listening and observing	41	2
Business procedures	42	*
Use of the telephone	43	10
Person-to-person discussion	45	5
Reading for comprehension	47	14
Role of profit	48	*
Fair treatment of minorities	49	7
Spelling	50	17
Business etiquette	52	8
Business arithmetic	52	21
Report writing	54	28
Channels of distribution	55	*
Free enterprise system in general	56	23
Type of business organization	57	*
Ability to deal with superiors	58	3
Cash register	59	26
Ability to get others to work effectively	60	13
Ability to work with others	61	1
Basic arithmetic	64	21
Mental arithmetic capability	65	12
Making change	67	11

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1. Only the lower 50% of the 67 skills and knowledge are included.

2. Only the upper 50% of the 62 skills and knowledge are included.

* Entry is not found in the list that employers considered.

For All States Except Washington

Table A14 High School Coordinators' Perceived Need for Additional Education in Each Subject

(Ranked by average scores - based on scale ranging from 1 through 9)

Subject	Ranking by Average (Mean) Need Score (from greatest to least need)	Average (Mean) (from greatest to least need)
knowledge of data processing	1	4.16
marketing research	2	5.28
world trade	3	5.30
higher mathematics	4	5.37
dictaphone	5	5.52
local trade laws	6	5.58
sales promotion	7	5.65
fashion trends	8	5.67
forecasting	8	5.67
federal laws and regulations	10	5.69
advertising	11	5.70
buying	12	5.71
statistics	13	5.76
unions	14	5.84
accounting	15	5.96
techniques and strategy for setting prices	16	5.99
reading fast	17	6.09
business law	18	6.10
economic cycles	19	6.11
insurance	20	6.12
labor-management relations	21	6.13
calculator	22	6.20
money and banking	23	6.23
national income	24	6.24
transportation	25	6.26
basic grammar	26	6.27
sources of funds for starting and operating a business	27	6.28
seasonal fluctuations	28	6.29
inventory records	29	6.30
cultural development	30	6.34
stockkeeping and inventory control	31	6.35
credit	31	6.35
penmanship	33	6.36
weighing or measuring devices	34	6.37
salesmanship	35	6.39
reading for comprehension	36	6.41
internal organization relations	37	6.46
group discussion	38	6.51

Table A14 (continued)

Subject	Ranking by Average (Mean) Need Score (from greatest to least need)	Average (Mean) (from greatest to least need)
supervision	39	6.52
prepared talks	40	6.53
role of profit	41	6.55
reading financial statements	42	6.56
punctuation	43	6.57
business locations	43	6.57
listening and observing	45	6.59
bookkeeping	46	6.61
report writing	47	6.64
free enterprise system in general	48	6.66
channels of distribution	49	6.70
ability to get others to work effectively	50	6.77
typewriter	50	6.77
business procedures	52	6.78
spelling	53	6.80
type of business organization	54	6.81
person-to-person discussion	55	6.82
letter writing	56	6.84
mental arithmetic capability	57	6.94
ability to work with others	58	6.95
business etiquette	59	6.96
fair treatment of minorities	60	6.97
cash register	61	6.98
business arithmetic	62	6.99
ability to deal with superiors	62	6.99
use of the telephone	64	7.20
basic arithmetic	65	7.41
adding machine	66	7.62
making change	67	7.78

For All States Except Washington

Table A15 High School Coordinators' Perceived Ability to Teach or Develop Personal Characteristics
(Ranked by average scores - based on scale ranging from 1 through 9)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average (Mean) Score
memory	1	6.73
imagination	2	7.12
quickness to grasp meaning	3	7.13
ability to analyze	4	7.16
willingness to do routine work	5	7.17
thinking quickly	6	7.19
reasoning logically	7	7.25
attention to details	8	7.32
patience	8	7.32
ability to apply knowledge	10	7.33
alertness	11	7.36
aggressiveness	12	7.38
knowing one's goal in life	13	7.39
get people to work well	14	7.41
control of temper	14	7.41
willingness to do extra assignments	16	7.47
ability to organize	16	7.47
accuracy	18	7.52
tolerance	19	7.57
safety consciousness	19	7.57
ability to take constructive criticism	21	7.59
tactfulness	22	7.61
perseverance	23	7.63
outgoing - sociable	23	7.63
self-confidence	23	7.63
positive attitude	26	7.64
willingness to take constructive criticism	27	7.70
initiative	28	7.71
ambition	29	7.73
application to the task	30	7.74
congeniality	31	7.75
enthusiasm	32	7.77
determination	33	7.78
willingness to take orders	34	7.80
smile	35	7.85
ability to talk easily with people	36	7.87
willingness to work on own	36	7.87

Table A15 (continued)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average (Mean) Score
willingness to abide by regulations	38	7.88
willingness to assume responsibility	38	7.88
hand shake	40	7.93
showing interest in job	41	7.98
pride in doing work well	42	8.00
manners	42	8.00
understanding what work means	44	8.03
desire to help others	45	8.04
appearance	46	8.05
friendliness	47	8.08
sincerity	47	8.08
ability to get along with people	49	8.11
loyalty	50	8.13
dependability	51	8.15
honesty	52	8.49

For All States Except Washington

Table A16 High School Coordinators' Perceived Ability to Teach or Develop Personal Characteristics
(Rank of average (mean) scores - based on scale ranging from 1 through 9)

Characteristic	Ranking of Ability (from least to greatest)	Number of Respondents	Very Poorly Equipped[1] (per cent)	Very Well Equipped[2] (per cent)
Motivation (Caring About Job)				
a. Knowing one's goal in life	21	306	1.9	79.6
b. Willingness to do routine work	4	307	3.7	64.8
c. Willingness to do extra assignments	26	307	1.9	74.1
d. Pride in doing work well	38	308	1.9	77.4
e. Enthusiasm	30	306	3.7	83.3
f. Aggressiveness	4	304	1.9	64.8
g. Ambition	27	304	1.9	74.1
h. Determination	28	306	1.9	79.6
i. Perseverence	18	306	1.9	77.8
Mental Ability				
a. Reasoning logically	22	305	0	76.6
b. Imagination	2	306	3.8	67.9
c. Quickness to grasp meaning	9	304	3.8	77.4
d. Ability to apply knowledge	12	305	3.8	76.9
e. Ability to analyze	6	303	3.8	67.9
f. Alertness	8	304	3.8	69.8
g. Thinking quickly	3	305	3.8	67.9
h. Memory	1	305	13.5	50.0

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1. Only the per cent of respondents who encircled 1, 2, and 3.

2. Only the per cent of respondents who encircled 7, 8, and 9.

Table A16 (continued)

Characteristic	Ranking of Ability (from least to greatest)	Number of Respondents	Very Poorly Equipped (per cent)	Very Well Equipped (per cent)
Human Relations				
a. Ability to take constructive criticsm	6	305	1.9	72.2
b. Friendliness	43	306	1.9	85.2
c. Tactfulness	11	306	1.9	74.1
d. Ability to get along with people	45	306	1.9	81.5
e. Ability to talk easily with people	31	304	1.9	83.3
f. Congeniality (pleasing personality)	23	305	1.9	81.5
g. Outgoing - sociable	16	306	1.9	75.9
Work Habits and Work Behavior				
a. Willingness to abide by regulations	40	306	1.9	88.7
b. Loyalty	50	306	1.9	88.5
c. Attention to details	15	306	3.7	77.8
d. Willingness to work on own	39	305	1.9	85.2
e. Accuracy	16	304	1.9	77.8
f. Willingness to take orders	13	305	1.9	75.9
Leadership				
a. Willingness to assume responsibility	46	305	1.9	87.0
b. Get people to work well	18	305	3.7	81.5
c. Desire to help others	41	304	1.9	85.2
d. Ability to organize	18	304	1.9	72.2
Attitude Toward Job				
a. Understanding what work means	46	310	3.8	86.8
b. Showing interest in job	34	299	3.8	86.8
c. Application to the task	31	299	1.9	84.9

Table A16 (continued)

Characteristic	Ranking of Ability (from least to greatest)	Number of Respondents	Very Poorly Equipped (per cent)	Very Well Equipped (per cent)
Temperament				
a. Patience	10	300	1.9	69.8
b. Control of temper	24	299	1.9	81.1
c. Tolerance	34	299	1.9	86.8
Other Personality, Behavioral Characteristics				
a. Positive attitude (optimism)	34	300	3.8	86.5
b. Dependability	48	300	3.8	88.7
c. Safety consciousness	13	298	2.0	76.0
d. Smile	42	300	1.9	78.8
e. Hand shake	34	299	2.0	78.0
f. Self confidence	31	300	1.9	81.1
g. Sincerity	44	298	1.9	88.7
h. Initiative	29	297	3.8	77.4
i. Manners	49	298	1.9	92.5
j. Willingness to take constructive criticism	24	299	1.9	81.1
k. Appearance	51	297	1.9	88.7
l. Honesty	52	297	1.9	92.3

High Schools for Washington State Only

Table A17 Importance (According to Employers of Non-supervisors) of Personal Characteristics in which Coordinators Say They Especially Need Additional Education

Characteristics	Area Code	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Memory	MENTAL	1	*
Thinking quickly	MENTAL	3	*
Willingness to do routine work	MOTIV	4	9
Aggressiveness	MOTIV	4	*
Ability to analyze	MENTAL	6	*
Ability to take constructive criticism	HR	6	8
Alertness	MENTAL	8	*
Patience	TEMP	10	*
Tactfulness	HR	11	13
Ability to apply knowledge	MENTAL	12	14
Willingness to take orders	WORK	13	*
Attention to details	WORK	15	6
Outgoing - sociable	HR	16	*
Accuracy	WORK	16	*
Perseverence	MOTIV	18	*
Get people to work well	LEAD	18	*
Ability to organize	LEAD	18	*
Congeniality	HR	23	*
Control of temper	TEMP	24	*
Willingness to take constructive criticism	OTHER	24	*

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1. Only the upper 50% of the 52 personal characteristics are included.

2. Only the upper 50% of the 29 personal characteristics are included.

* Entry isn't found in the list that employers considered.

For Washington State Only

Table A18 High School Coordinators' Perceived Ability to Teach or Develop Personal Characteristics
(Ranked by average scores - based on scale ranging from 1 through 9)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average Score	Number of Responses
Memory	1	6.35	52
Imagination	2	6.96	53
Thinking quickly	3	7.00	53
Willingness to do routine work	4	7.02	54
Aggressiveness	4	7.02	54
Ability to analyze	6	7.04	53
Ability to take constructive criticism	6	7.04	54
Alertness	8	7.06	53
Quickness to grasp meaning	9	7.11	53
Patience	10	7.19	53
Tactfulness	11	7.22	54
Ability to apply knowledge	12	7.23	52
Willingness to take orders	13	7.26	54
Safety consciousness	13	7.26	50
Attention to details	15	7.28	54
Outgoing-sociable	16	7.31	54
Accuracy	16	7.31	54
Perseverance	18	7.33	54
Get people to work well	18	7.33	54
Ability to organize	18	7.33	54
Knowing one's goal in life	21	7.35	54
Reasoning logically	22	7.36	53
Congeniality	23	7.37	54
Control of temper	24	7.38	53
Willingness to take constructive criticism	24	7.38	53

Table A18 (continued)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average Score	Number of Responses
Willingness to do extra assignments	26	7.39	54
Ambition	27	7.41	54
Determination	28	7.44	54
Initiative	29	7.51	53
Enthusiasm	30	7.52	54
Ability to talk easily with people	31	7.57	54
Application to the task	31	7.57	53
Self confidence	31	7.57	53
Showing an interest in job	34	7.58	53
Tolerance	34	7.58	53
Positive attitude	34	7.58	52
Hand shake	34	7.58	50
Pride in doing work well	38	7.62	53
Willingness to work on own	39	7.63	54
Willingness to abide by regulations	40	7.64	53
Desire to help others	41	7.67	54
Smile	41	7.67	52
Friendliness	43	7.70	54
Sincerity	44	7.72	53
Ability to get along with people	45	7.74	54
Willingness to assume responsibility	46	7.80	54
Understanding what work means	46	7.80	53
Dependability	48	7.85	53
Manners	49	7.87	53
Loyalty	50	7.88	52
Appearance	51	7.89	53
Honesty	52	8.19	52

High Schools for Washington State Only

Table A19 Importance (According to Employers of Non-supervisors) of Personal Characteristics in which Coordinators Say They Do Not Need as Much Additional Education

Characteristics	Area Code	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Ambition	MOTIV	27	*
Determination	MOTIV	28	*
Initiative	OTHER	29	7
Enthusiasm	MOTIV	30	12
Ability to talk easily with people	HR	31	*
Application to the task	ATTI	31	*
Showing interest in job	ATTI	34	*
Tolerance	TEMP	34	*
Pride in doing work well	MOTIV	38	5
Willingness to work on own	WORK	39	*
Willingness to abide by regulations	WORK	40	4
Desire to help others	LEAD	41	*
Smile	OTHER	41	15
Friendliness	HR	43	10
Sincerity	OTHER	44	11
Ability to get along with people	HR	45	*
Understanding what work means	ATTI	46	*
Dependability	OTHER	48	2
Loyalty	WORK	50	3
Honesty	OTHER	52	1

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1. Only the lower 50% of the 52 personal characteristics are included.

2. Only the upper 50% of the 29 personal characteristics are included.

* Entry isn't found in the list that employers considered.

For All States Except Washington

Table A20 High School Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters
(Ranked by average (mean) score - based on 1 through 9 scale)

	Ranking (from best to least prepared)		Very Well Equipped[1] (%)	Very Poorly Equipped[2] (%)	Number of Respondents
	Rank	Mean			
Coordinating skills	1	7.1	38.0	1.1	277
Guidance	2	7.1	72.0	3.5	282
Teaching with projects	3	5.7	39.1	16.3	276
Designing individual projects	4	5.6	34.4	16.3	276

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[1] Only the per cent of respondents who encircled 7, 8, and 9.

[2] Only the per cent of respondents who encircled 1, 2, and 3.

For Washington State Only

Table A21 High School Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters
(Ranked by average (mean) score - based on 1 through 9 scale)

Teaching Matter	Ranking (from best to least prepared)		Very Well Equipped[1] (%)	Very Poorly Equipped[2] (%)	Number of Respondents
	Rank	Mean			
Coordinating skills	1	6.9	70.8	4.2	48
Guidance	2	6.8	72.3	6.4	47
Designing individual projects	3	5.9	45.8	14.6	48
Teaching with projects	4	5.8	48.9	21.3	47

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[1] Only the per cent of respondents who encircled 7, 8, and 9.

[2] Only the per cent of respondents who encircled 1, 2, and 3.

For All States Except Washington

Table A22 Total Class Hours Devoted to Subject in the Community College Distributive Education Program

Subject	Median (hrs)	Range Max. (hrs)	 Min. (hrs)	No. of Respondents
Accounting	45	99[1]	0	74
Salesmanship	36	99	0	96
Advertising	30	99	0	94
Business law	20	96	0	64
Business arithmetic	15	66	0	84
Group discussion	10	99	0	89
Prepared talks	10	99	0	78
Basic arithmetic	10	70	0	51
Sales promotion	10	90	0	91
Supervision	10	99	0	81
Buying	9	99	0	91
Channels of distribution	8	66	0	90
Ability to get others to work effectively	6	99	0	84
Ability to work with others	6	99	0	81
Marketing research	6	99	0	89
Report writing	5	60	0	70
Person-to-person discussion	5	99	0	72
Basic grammar	5	99	0	41
Listening and observing	5	99	0	55
Fair treatment of minorities	5	99	0	78
Ability to deal with superiors	5	99	0	81
Stockkeeping and inventory control	5	99	0	89
Credit	5	99	0	91
Reading financial statements	5	54	0	81
Techniques and strategy for setting prices	5	99	0	48
Free enterprise system in general	5	60	0	66
Type of business organization	5	99	0	74
Business procedures	5	99	0	74
Internal organization relations	5	99	0	35
Labor-management relations	5	99	0	78
Mental arithmetic capability	4	45	0	53

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[1] For tabulation on IBM cards, all figures had to be 2 digits or less. As a result, "99" shown here really means 99 or more hours.

Table A22 (continued)

		Range		
Subject	Median (hrs)	Max. (hrs)	Min. (hrs)	No. of Respondents
Business etiquette	4	99	0	77
Inventory records	4	99	0	86
Bookkeeping	4	99	0	80
Business locations	4	50	0	78
Money and banking	4	90	0	85
Role of profit	4	99	0	79
Federal laws and regulations	4	50	0	69
Letter writing	3	60	0	62
Spelling	3	45	0	46
Statistics	3	60	0	53
Fashion trends	3	60	0	87
Transportation	3	60	0	86
Cash register	3	99	0	22
Forecasting	3	99	0	70
Sources of funds for starting and operating a business	3	60	0	76
Knowledge of data processing	3	64	0	73
Insurance	3	60	0	82
Punctuation	2	60	0	42
Reading for comprehension	2	60	0	35
Use of the telephone	2	21	0	61
Making change	2	99	0	60
Typewriter	2	99	0	44
Calculator	2	99	0	54
Adding machine	2	99	0	30
National income	2	18	0	52
Economic cycles	2	54	0	81
Seasonal fluctuations	2	50	0	72
Unions	2	40	0	67
Cultural development	2	99	0	73
Penmanship	1	45	0	36
Reading fast	1	60	0	31
World trade	1	30	0	79
Weighing or measuring devices	1	99	0	39
Local trade laws	1	12	0	83
Higher mathematics	0	64	0	31
Dictaphone	0	48	0	60

For Washington State Only

Table A23 Total Class Hours Devoted to Subject in the Community College Distributive Education Program

		Range		
Subject	Median (hrs)	Max. (hrs)	Min. (hrs)	No. of Respondents
Salesmanship	50	90	5	18
Advertising	30	60	5	18
Bookkeeping	30	99[1]	5	18
Accounting	20	99	0	18
Supervision	20	99	2	18
Ability to work with others	18	99	0	18
Business arithmetic	15	60	3	17
Prepared talks	13	50	0	16
Ability to get others to work effectively	12	99	4	18
Channels of distribution	12	99	0	18
Group discussion	10	99	0	14
Basic grammar	10	50	0	8
Basic arithmetic	10	50	0	10
Fair treatment of minorities	10	99	0	18
Ability to deal with superiors	10	99	0	18
Marketing research	10	99	0	18
Sales promotion	10	50	0	17
Buying	10	30	0	18
Credit	10	55	0	18
Free enterprise system in general	10	99	3	12
Role of profit	10	50	1	19
Type of business organization	10	50	1	14
Internal organization relations	10	55	1	7
Labor-management relations	10	55	0	18
Business law	8	99	0	12
Techniques and strategy for setting prices	6	99	0	11
Business locations	6	50	0	16
Money and banking	6	50	2	18
Letter writing	5	60	0	11
Report writing	5	30	0	12

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[1] For tabulation on IBM cards, all figures had to be 2 digits or less. As a result, "99" shown here really means 99 or more hours.

Table A23 (continued)

		Range		
Subject	Median (hrs)	Max. (hrs)	Min. (hrs)	No. of Respondents
Person-to-person discussion	5	60	0	12
Listening and observing	5	80	0	12
Mental arithmetic capability	5	60	0	11
Business etiquette	5	99	0	17
Inventory records	5	20	0	17
Transportation	5	30	0	19
Stockkeeping and inventory control	5	30	0	17
Reading financial statements	5	55	0	18
Typewriter	5	60	0	12
Dictaphone	5	33	0	14
Calculator	5	33	0	12
National income	5	50	0	11
Economic cycles	5	50	1	18
Forecasting	5	50	1	16
Sources of funds for starting and operating a business	5	50	0	19
Business procedures	5	30	0	15
Seasonal fluctuations	4	50	1	16
Spelling	3	20	1	9
Fashion trends	3	15	0	15
Adding machine	3	33	0	7
Insurance	3	10	0	18
Local trade laws	3	30	0	18
Federal laws and regulations	3	30	1	14
Unions	3	30	0	17
Cultural development	3	60	0	14
Punctuation	2	11	0	9
Reading for comprehension	2	55	0	9
Reading fast	2	55	0	10
Use of the telephone	2	20	0	12
Making change	2	30	0	12
Knowledge of data processing	2	20	0	16
Penmanship	1	11	0	7
World trade	1	20	0	13
Higher mathematics	0	30	0	8
Statistics	0	30	0	9
Cash register	0	10	0	7
Weighing and measuring devices	0	5	0	11

For All States Except Washington

Table A24 Community College Coordinators' Perceived Need for Additional Education by Subject (Rank of average (mean) scores - based on scale ranging from 1 through 9)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much[1] (per cent)	Need Little[2] (per cent)	Number of Responses
Communications				
a. Writing				
1. Letter writing	30	11.9	44.8	67
2. Report writing	30	15.7	47.1	70
3. Spelling	61	10.0	62.0	50
4. Penmanship	40	14.3	47.6	42
5. Punctuation	40	15.2	54.3	46
b. Oral presentation				
1. Group discussion	55	9.0	60.7	89
2. Prepared talks	48	17.2	60.9	87
3. Person-to-person discussion	50	15.2	58.2	79
c. Basic grammar	25	16.3	48.8	43
d. Listening and observing	21	19.0	49.2	63
e. Reading				
1. Reading for comprehension	13	25.6	48.7	39
2. Reading fast	4	35.3	38.2	34
f. Use of the telephone	63	6.2	61.5	65

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1. Only the per cent of respondents who encircled 1, 2, and 3.

2. Only the per cent of respondents who encircled 7, 8, and 9.

Table A24 (continued)

Mathematics	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Responses
a. Basic arithmetic (addition, subtraction, etc.)	66	11.9	72.9	59
b. Business arithmetic (discounts, mark-ups, mark-downs)	52	18.4	62.1	87
c. Mental arithmetic capability	64	6.9	60.3	58
d. Making change	67	10.6	78.8	66
e. Higher mathematics	18	18.2	42.4	33
f. Statistics	11	24.5	37.7	53
Human Relations				
a. Ability to get others to work effectively	38	17.2	58.0	93
b. Ability to work with others	47	17.2	63.4	93
c. Fair treatment of minorities	54	13.5	62.9	89
d. Ability to deal with superiors	45	16.5	62.6	91
e. Business etiquette	58	13.3	68.9	90
Marketing				
a. Salesmanship	57	16.8	66.3	101
b. Marketing research	7	25.0	39.1	92
c. Advertising	17	21.7	43.6	101
d. Sales promotion (displays, tradeshows, etc.)	19	20.4	38.8	98

Table A24 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Responses
e. Inventory records	33	11.8	47.3	93
f. Fashion trends	5	20.1	28.1	89
g. Buying	20	16.4	45.9	61
h. Transportation	16	14.6	35.9	89
i. Stockkeeping and inventory control	36	9.6	46.8	94
j. Credit	23	16.5	44.3	97
k. World trade	6	30.9	35.8	81
l. Channels of distribution	55	11.6	54.7	95
Financial Records				
a. Bookkeeping	35	22.6	47.2	87
b. Reading financial statements	28	17.1	47.1	88
c. Accounting (more than bookkeeping and financial statements)	15	25.0	43.3	85
Machines of Business				
a. Typewriter	22	27.8	50.0	53
b. Dictaphone	2	37.5	37.5	70
c. Calculator	32	21.4	50.0	60
d. Adding machine	65	11.4	65.7	36
e. Cash register	62	11.9	64.2	24
f. Weighing or measuring devices	43	14.0	52.6	42

Table A24 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of Responses
Economics				
a. Techniques and strategy for setting prices	33	11.9	48.8	35
b. Free enterprise system in general	51	16.9	59.0	67
c. National income	40	10.0	48.6	57
d. Economic cycles	26	10.9	45.2	84
e. Business locations	37	14.8	55.7	83
f. Forecasting	13	22.8	39.2	70
g. Seasonal fluctuations	44	13.1	53.6	73
h. Money and banking (banking services and activities)	24	17.3	44.0	88
i. Sources of funds for starting and operating a business	29	19.5	50.6	79
j. Role of profit	46	16.1	57.8	84
Other Knowledge				
a. Knowledge of data processing	1	51.4	5.9	75
b. Insurance	11	20.5	35.9	87
c. Local trade laws	3	23.3	26.0	87
d. Business law	9	21.1	34.2	72
e. Federal laws and regulations	8	20.3	32.9	78
f. Unions	10	24.7	42.0	73
g. Cultural development (appreciation of the arts)	26	15.4	59.0	76

Table A24 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Need Much (per cent)	Need Little (per cent)	Number of (per cent)
Business Organization, Procedure, Management				
a. Type of business organization	60	11.1	70.0	79
b. Business procedures (orders, deliveries, invoices, etc.)	59	9.5	61.2	81
c. Internal organization relations	53	11.5	57.5	39
d. Supervision	49	17.5	60.2	90
e. Labor-management relations	38	14.1	54.1	84

Community Colleges for Washington State Only

Table A25 Importance (According to Employers of Supervisors) of Areas in which Coordinators Say They Especially Need Additional Education

Areas	Area Code	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Reading for comprehension	C	4	14
Fashion trends	MKT	11	28
Federal laws and regulations	OTHER	14	29
Basic grammar	C	18	13
Report writing	C	19	26
Spelling	C	20	22
Labor-management relations	BOPM	21	*
Sales promotion	MKT	23	27
Local trade laws	OTHER	24	25
Forecasting	ECO	28	31
Listening and observing	C	30	4
Credit	MKT	31	23
Ability to work with others	HR	31	2

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1. Only the upper 50% of the 67 skills and knowledge are included.

2. Only the upper 50% of the 62 skills and knowledge are included.

* Entry isn't found in the list that employers considered.

Community Colleges for Washington State Only

Table A26 Importance (According to Employers of Supervisors) of Areas in which Coordinators Say They Do Not Need as much Additional Education

Areas	Area Code	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Ability to get others to work effectively	HR	35	1
Group discussion	C	37	15
Penmanship	C	38	24
Mental arithmetic capability	MATH	39	16
Ability to deal with superiors	HR	41	5
Stockkeeping and inventory control	MKT	42	18
Basic arithmetic	MATH	43	7
Internal organization relations	BOPM	45	9
Use of the telephone	C	48	8
Business arithmetic	MATH	48	19
Fair treatment of minorities	HR	50	12
Buying	MKT	52	30
Seasonal fluctuations	ECO	53	21
Role of profit	ECO	54	*
Channels of distribution	MKT	54	*
Inventory records	MKT	58	*
Supervision	BOPM	60	*
Business etiquette	HR	61	11
Person-to-person discussion	C	62	3
Business procedures	BOPM	63	*
Free enterprise system	ECO	64	20
Type of business organization	BOPM	65	*
Salesmanship	MKT	66	6

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1. Only the lower 50% of the 67 skills and knowledge are included.

2. Only the upper 50% of the 62 skills and knowledge are included.

* Entry is not found in the list that employers considered.

For Washington State Only

Table A27 Community College Coordinators' Perceived Need for Additional Education by Subject
(Average scores - based on scale ranging from 1 through 9)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (from greatest to least need)	Number of Responses
Knowledge of data processing	1	3.23	15
Typewriter	2	4.20	13
Reading fast	3	4.25	8
Higher mathematics	4	4.75	8
Reading for comprehension	4	4.75	8
World trade	6	5.00	14
Letter writing	6	5.00	8
Insurance	8	5.06	18
Dictaphone	9	5.20	14
Calculator	10	5.25	11
Fashion trends	11	5.56	16
Punctuation	11	5.56	9
Transportation	13	5.68	19
Federal laws and regulations	14	5.71	16
Marketing research	14	5.71	17
Statistics	16	5.78	9
Unions	17	5.80	17
Basic grammar	18	5.88	8
Report writing	19	5.91	11
Spelling	20	6.00	10
Labor-management relations	21	6.11	17
Cultural development	21	6.11	12
Sales promotion	23	6.12	16
Local trade laws	24	6.18	18
Business law	25	6.25	13
Weighing or measuring devices	25	6.25	8

Table A27 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (from greatest to least need)	Number of Responses
Adding machine	25	6.25	5
Forecasting	28	6.28	16
Techniques and strategy for setting prices	29	6.33	8
Listening and observing	29	6.33	12
Reading financial statements	31	6.36	17
Credit	32	6.39	18
Ability to work with others	32	6.39	18
Advertising	34	6.41	17
Ability to get others to work effectively	35	6.44	18
Prepared talks	36	6.47	15
Group discussion	37	6.53	15
Penmanship	38	6.57	7
Mental arithmetic capability	39	6.58	12
Money and banking	40	6.60	18
Ability to deal with superiors	41	6.61	18
Stockkeeping and inventory control	42	6.65	17
Cash register	43	6.67	5
Basic arithmetic	43	6.67	12
Internal organization relations	45	6.69	9
Bookkeeping	46	6.70	16
National income	47	6.75	12
Business arithmetic	48	6.82	17
Use of the telephone	48	6.82	11
Business locations	50	6.83	16
Fair treatment of minorities	50	6.83	18
Buying	52	6.85	13

Table A27 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (from greatest to least need)	Number of Responses
Seasonal fluctuations	53	6.89	15
Role of profit	54	7.00	19
Channels of distribution	54	7.00	18
Economic cycles	56	7.07	18
Accounting	57	7.09	18
Inventory records	58	7.12	17
Sources of funds for starting and operating a business	59	7.17	18
Supervision	60	7.18	18
Business etiquette	61	7.24	17
Person-to-person discussion	62	7.43	14
Business procedures	63	7.47	14
Free enterprise system in general	64	7.56	12
Type of business organization	65	7.72	14
Salesmanship	66	7.78	18
Making change	67	8.08	13

For All States Except Washington

Table A28 Community College Coordinators' Perceived Need for Additional Education by Subject
(Average (mean) scores - based on scale ranging from 1 through 9)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (Mean) (from greatest to least need)
knowledge of data processing	1	4.01
dictaphone	2	4.75
local trade laws	3	5.03
reading fast	4	5.06
fashion trends	5	5.08
world trade	6	5.17
marketing research	7	5.32
federal laws and regulations	8	5.37
business laws	9	5.45
unions	10	5.46
statistics	11	5.51
insurance	11	5.51
reading for comprehension	13	5.56
forecasting	13	5.56
accounting	15	5.62
transportation	16	5.64
advertising	17	5.68
higher mathematics	18	5.70
sales promotion	19	5.72
buying	20	5.87
listening and observing	21	5.89
typewriter	22	5.92
credit	23	5.94
money and banking	24	5.95
basic grammar	25	5.98
economic cycles	26	6.00
cultural development	26	6.00
reading financial statements	28	6.01
sources of funds for starting and operating a business	29	6.03
letter writing	30	6.06
report writing	30	6.06
calculator	32	6.07
inventory records	33	6.10
techniques and strategy for setting prices	33	6.10
bookkeeping	35	6.13
stockkeeping and inventory control	36	6.16
business locations	37	6.19
ability to get others to work effectively	38	6.20

Table A28 (continued)

Subject	Ranking by Average Need Score (from greatest to least need)	Average (Mean) (from greatest to least need)
labor-management relations	38	6.20
penmanship	40	6.24
punctuation	40	6.24
national income	40	6.24
weighing or measuring devices	43	6.26
seasonal fluctuations	44	6.30
ability to deal with superiors	45	6.35
role of profit	46	6.36
ability to work with others	47	6.38
prepared talks	48	6.39
supervision	49	6.41
person-to-person discussion	50	6.42
free enterprise system in general	51	6.45
business arithmetic	52	6.47
internal organization relationships	53	6.52
fair treatment of minorities	54	6.53
group discussion	55	6.56
channels of distribution	55	6.56
salesmanship	57	6.58
business etiquette	58	6.59
business procedures	59	6.70
type of business organization	60	6.71
spelling	61	6.72
cash register	62	6.73
use of the telephone	63	6.78
mental arithmetic capability	64	6.88
adding machine	65	7.03
basic arithmetic	66	7.24
making change	67	7.55

For All States Except Washington

Table A29 Community College Coordinators' Perceived Ability to Teach or Develop Personal Characteristics
(Rank of average (mean) scores - based on scale ranging from 1 through 9)

Characteristic	Ranking of Ability (from least to greatest)	Number of Respondents	Very Poorly Equipped[1] (per cent)	Very Well Equipped[2] (per cent)
Motivation or Caring About Job				
a. Knowing one's goal in life	21	114	0	90.5
b. Willingness to do routine work	6	114	4.8	61.9
c. Willingness to do extra assignments	33	114	0	85.7
d. Pride in doing work well	43	114	0	81.0
e. Enthusiasm	23	114	4.8	81.0
f. Aggressiveness	23	114	0	71.4
g. Ambition	36	113	0	85.7
h. Determination	26	114	0	76.2
i. Perseverance	33	114	0	76.2
Mental Ability				
a. Reasoning logically	7	114	0	66.7
b. Imagination	20	114	0	71.4
c. Quickness to grasp meaning	10	113	0	75.0
d. Ability to apply knowledge	30	113	4.8	85.7
e. Ability to analyze	23	113	0	76.2
f. Alertness	4	113	0	61.9
g. Thinking quickly	4	113	0	57.1
h. Memory	1	111	4.8	52.7

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1. Only the per cent of respondents who encircled 1, 2, and 3.

2. Only the per cent of respondents who encircled 7, 8, and 9.

Table A29 (continued)

Characteristic	Ranking of Ability (from least to greatest)	Number of Responses	Very Poorly Equipped (per cent)	Very Well Equipped (per cent)
Human Relations				
a. Ability to take constructive criticism	32	114	0	85.7
b. Friendliness	28	114	0	81.0
c. Tactfulness	14	114	0	85.7
d. Ability to get along with people	47	114	0	90.0
e. Ability to talk easily with people	36	113	0	81.0
f. Congeniality (pleasing personality)	13	113	0	65.0
g. Outgoing - sociable	9	114	4.8	61.9
Work Habits and Work Behavior				
a. Willingness to abide by regulations	17	114	0	76.2
b. Loyalty	33	114	4.8	81.0
c. Attention to details	2	114	5.0	55.0
d. Willingness to work on own	45	114	0	85.7
e. Accuracy	8	112	4.8	71.4
f. Willingness to take orders	20	114	4.8	81.0
Leadership				
a. Willingness to assume responsibility	47	114	0	90.5
b. Get people to work well	26	114	0	81.0
c. Desire to help others	36	114	0	85.7
d. Ability to organize	16	114	0	81.0

Table A29 (continued)

Characteristic	Ranking of Ability (from least to greatest)	Number of Responses	Very Poorly Equipped (per cent)	Very Well Equipped (per cent)
Attitude Toward Job				
a. Understanding what work means	45	114	0	81.0
b. Showing interest in job	28	114	0	71.4
c. Application to the task	20	114	0	76.2
Temperament				
a. Patience	14	114	0	85.7
b. Control of temper	12	114	4.8	76.2
c. Tolerance	17	114	0	76.2
Other Personality, Behavioral Characteristics				
a. Positive attitude (optimism)	43	113	0	85.7
b. Dependability	36	113	0	81.0
c. Safety consciousness	3	111	4.8	61.9
d. Smile	47	111	0	85.7
e. Hand shake	50	112	0	85.7
f. Self confidence	36	113	0	81.0
g. Sincerity	50	113	0	85.7
h. Initiative	41	113	0	81.0
i. Manners	30	111	0	81.0
j. Willingness to take constructive criticism	11	113	9.5	85.7
k. Appearance	17	113	4.8	76.2
l. Honesty	52	113	0	90.5

For All States Except Washington

Table A30 Community College Coordinators' Perceived Ability to Teach or Develop Personal Characteristics
(Ranked by average scores - based on a scale ranging from 1 through 9)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average (Mean) Score
memory	1	6.91
willingness to do routine work	2	6.95
attention to details	3	7.14
patience	4	7.18
quickness to grasp meaning	5	7.19
ability to take constructive criticism	6	7.20
ability to analyze	7	7.23
willingness to abide by regulations	7	7.23
reasoning logically	9	7.24
thinking quickly	10	7.25
imagination	11	7.28
control of temper	12	7.31
accuracy	13	7.32
tolerance	13	7.32
alertness	15	7.35
tactfulness	16	7.36
safety consciousness	16	7.36
willingness to take orders	18	7.37
willingness to take constructive criticism	19	7.38
ability to apply knowledge	20	7.52
aggressiveness	21	7.54
outgoing - sociable	21	7.54
ability to organize	23	7.60
congeniality	24	7.63
get people to work well	24	7.63
willingness to do extra assignments	26	7.64
knowing one's goal in life	27	7.72
perseverance	28	7.74
application to the task	29	7.76
ability to talk easily with people	30	7.79
ambition	31	7.80
manners	31	7.80
self-confidence	33	7.81
determination	34	7.82
desire to help others	34	7.82
willingness to work on own	36	7.84
smile	37	7.87
initiative	37	7.87

Table A30 (continued)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average (Mean) Score
positive attitude	39	7.88
hand shake	40	7.89
loyalty	41	7.90
showing an interest in job	42	7.95
enthusiasm	43	7.96
ability to get along with people	43	7.96
understanding what work means	45	7.98
pride in doing work well	46	7.99
willingness to assume responsibility	46	7.99
friendliness	48	8.04
appearance	49	8.06
dependability	50	8.07
sincerity	50	8.07
honesty	52	8.16

For Community Colleges in Washington Only

Table A31 Importance (According to Employers of Supervisors) of Personal Characteristics in which Coordinators Say They Especially Need More Education

Characteristics	Area Code	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Memory	MENTAL	1	*
Attention to details	WORK	2	14
Thinking quickly	MENTAL	4	*
Alertness	MENTAL	4	*
Accuracy	WORK	8	*
Outgoing - sociable	HR	9	*
Ability to take constructive criticism	HR	11	9
Control of temper	TEMP	11	*
Congeniality	HR	13	*
Patience	TEMP	14	*
Tactfulness	HR	14	13
Ability to organize	LEAD	16	*
Tolerance	TEMP	17	*
Willingness to abide by regulations	WORK	17	10
Willingness to take orders	WORK	20	*
Application to the task	ATTI	20	*
Aggressiveness	MOTIV	23	*
Ability to analyze	MENTAL	23	*
Enthusiasm	MOTIV	23	7
Get people to work well	LEAD	26	*

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1. Only the upper 50% of the 52 personal characteristics are included.

2. Only the upper 50% of the 29 personal characteristics are included.

* Entry isn't found in the list that employers considered.

For Washington State Only

Table A32 Community College Coordinators' Perceived Ability
To Teach or Develop Personal Characteristics
(Ranked by average scores - based on scale ranging from 1 through 9)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average Score	Number of Responses
Memory	1	6.48	21
Attention to details	2	6.80	20
Safety consciousness	3	6.86	21
Alertness	4	6.95	21
Thinking quickly	4	6.95	21
Willingness to do routine work	6	7.00	21
Reasoning logically	7	7.05	21
Accuracy	8	7.10	21
Outgoing-sociable	9	7.14	21
Quickness to grasp meaning	10	7.20	20
Ability to take constructive criticism	11	7.24	21
Control of temper	11	7.24	21
Congeniality	13	7.25	20
Tactfulness	14	7.29	21
Patience	14	7.29	21
Ability to organize	16	7.33	21
Willingness to abide by regulations	17	7.38	21
Tolerance	17	7.38	21
Appearance	17	7.38	21
Imagination	20	7.43	21
Willingness to take orders	20	7.43	21
Application to the task	20	7.43	21
Enthusiasm	23	7.48	21
Aggressiveness	23	7.48	21
Ability to analyze	23	7.48	21
Determination	26	7.52	21

Table A32 (continued)

Characteristic	Rank (lowest to highest ability to teach or develop)	Average Score	Number of Responses
Get people to work well	26	7.52	21
Friendliness	28	7.57	21
Showing an interest in job	28	7.57	21
Ability to apply knowledge	30	7.62	21
Manners	30	7.62	21
Willingness to take constructive criticism	32	7.67	21
Willingness to do extra assignments	33	7.71	21
Perseverance	33	7.71	21
Loyalty	33	7.71	21
Ambition	36	7.76	21
Ability to talk easily with people	36	7.76	21
Desire to help others	36	7.76	21
Dependability	36	7.76	21
Self-confidence	36	7.76	21
Initiative	41	7.81	21
Knowing one's goal in life	42	7.86	21
Pride in doing work well	42	7.86	21
Positive attitude	42	7.86	21
Willingness to work on own	45	7.90	21
Understanding what work means	45	7.90	21
Ability to get along with people	47	7.95	20
Willingness to assume responsibility	47	7.95	21
Smile	47	7.95	21
Hand shake	50	8.00	21
Sincerity	50	8.00	21
Honesty	52	8.19	21

For Community Colleges in Washington Only

Table A33 Importance (According to Employers of Supervisors) of Personal Characteristics in which Coordinators Say They Do Not Need Much More Education

Characteristics	Area Code	Ranking by Additional Education Needed[1]	Importance Ranking[2]
Determination	MOTIV	26	*
Showing interest in job	ATTI	28	*
Ability to apply knowledge	MENTAL	30	11
Willingness to take constructive criticism	OTHER	32	*
Perseverance	MOTIV	33	*
Loyalty	WORK	33	4
Ambition	MOTIV	36	*
Ability to talk easily with people	HR	36	*
Desire to help others	LEAD	36	*
Dependability	OTHER	36	2
Initiative	OTHER	41	5
Pride in doing work well	MOTIV	42	6
Positive attitude	OTHER	42	15
Willingness to work on own	WORK	45	*
Understanding what work means	ATTI	45	*
Willingness to assume responsibility	LEAD	47	3
Ability to get along with people	HR	47	*
Sincerity	OTHER	50	8
Honesty	OTHER	52	1

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1. Only the lower 50% of the 52 personal characteristics are included.

2. Only the upper 50% of the 29 personal characteristics are included.

* Entry isn't found in the list that employers considered.

For All States Except Washington

Table A34 Community College Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters

(Ranked by average (mean) score - based on 1 through 9 scale)

Teaching Matter	Ranking (from best to least prepared)		Very Well Equipped[1] (%)	Very Poorly Equipped[2] (%)	Number of Respondents
	Rank	Mean			
Coordinating skills	1	7.3	75.9	2.9	104
Guidance	2	7.0	68.0	5.8	103
Teaching with projects	4	6.0	45.6	12.9	101
Designing individual projects	3	6.3	54.0	10.8	102

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[1] Only the per cent of respondents who encircled 7, 8, and 9.

[2] Only the per cent of respondents who encircled 1, 2, and 3.

For Washington State Only

Table A35 Community College Coordinators' Perceived Need for Additional Education in General Distributive Education Teaching Matters
(Ranked by average (mean) score - based on 1 through 9 scale)

Teaching Matter	Ranking (from best to least prepared)		Very Well Equipped[1] (%)	Very Poorly Equipped[2] (%)	Number of Respondents
	Rank	Mean			
Coordinating skills	1	6.9	68.4	15.6	19
Guidance	2	6.5	57.9	5.3	19
Designing individual projects	3	5.9	42.1	14.6	19
Teaching with projects	4	5.3	27.8	22.2	18

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[1] Only the per cent of respondents who encircled 7, 8, and 9.

[2] Only the per cent of respondents who encircled 1, 2, and 3.